

T.C
MARMARA UNİVERSİTESİ
AVRUPA BİRLİĐİ ENSTİTÜSÜ
AVRUPA BİRLİĐİ İKTİSADI ANA BİLİM DALI

**A SURVEY OF ORGANIC AGRICULTURAL SECTOR IN THE WORLD IN
COMPARISON WITH THE EUROPEAN UNION AND TURKEY PRACTICES**

YÜKSEK LİSANS TEZİ

Hazırlayan

Kılıç Fehmi ARSLAN

İSTANBUL – 2009

T.C
MARMARA UNİVERSİTESİ
AVRUPA BİRLİĞİ ENSTİTÜSÜ
AVRUPA BİRLİĞİ İKTİSADI ANA BİLİM DALI

**A SURVEY OF ORGANIC AGRICULTURAL SECTOR IN THE WORLD IN
COMPARISON WITH THE EUROPEAN UNION AND TURKEY PRACTICES**

YÜKSEK LİSANS TEZİ

Hazırlayan
KILIÇ FEHMİ ARSLAN

Tez Danışmanı
Prof.Dr. Ahmet Ali Karaca

İSTANBUL – 2009

ABSTRACT

As public became more aware of the possible hazardous effects of the conventional farming products, organic agriculture practices have been increasingly spreading all over the world.

Since the 1980's, organic agriculture has been an important topic in the research agenda of the scientists active in various fields from science to biology or even economics.

Economic Unions have been increasingly important in the last decade, in which one of them is the European Union (EU) being the most integrated of all. It is an enlarging body that has achieved considerable degree of economic integration. The EU is considered to be important for Turkey. The EU has a supporting role in agricultural policy. Organical agriculture, which is considered to have an important role in EU economics, became more important issue between Turkey and EU relations, due to Turkey's agriculture potential.

Organic agriculture started in Turkey through the demand from foreign countries in 1990's. Due to the lack of information sharing on organic agriculture, organic agriculture sector in Turkey was not aware of its potential. It is one of the factors that affects organic farming sector negatively. By creating the body which enables data sharing system by more number of people and significant support by organic agriculture sides would lead the sector to benefit from the existing potential. Organic agriculture market in Turkey will have a chance to compete with other world organic agriculture markets. Organic agriculture's products are healthy for consumers. On the other hand what is also argued within this thesis is organic agriculture's beneficial effects on the nature.

ÖZET

İnsan sađlıđı üzerine önemli yan etkileri geniş kitleler tarafından bilinmeyen başlandıķça konvansiyonel tarım yerini organik tarım metoduna son yıllarda artan bir hızla bırakmaya başlamıştır.1980 'lı yıllarda, dünya çapında genişlemeye başlayan alternatif tarım sistemi olan organik tarımın dünya ekonomisindeki yeri, üreticileri, tüketicileri önemli bir araştırma konusunu teşkil etmektedir.

Ekonomik birliklerin önemi son on yılda giderek artmıştır, Avrupa birliđi bunların en önemlilerinden biridir. Avrupa Birliđi giderek genişleyen ekonomik birliđi gerçekleştiren bir birliktir. Avrupa Birliđi Türkiye için önemli bir birliktir. Avrupa Birliđi nin organik tarımı desteklemede öncü rolü bulunmaktadır. AB ekonomisinde önemli bir yere sahip olan organik tarım, Türkiye deki büyük tarım potansiyeli ve önemli AB ilişkileri göz önüne alındığında bir adım daha ileri çıkmaktadır.

1990'lı yılların başında yurt dışından gelen talep doğrultusunda organik tarım Türkiye'de başlamıştır. Ancak Türkiye'deki organik tarım sektörü henüz istenilen seviyeye ulaşmamıştır. Türkiyedeki organik tarım bilgisinin paylaşılmasından doğan eksiklikten ötürü organik tarım gerekli desteđi bulamamıştır. Bu da organik tarım ekonomisini olumsuz yönde etkileyen faktörlerden biridir. Türkiye deki organik tarım bilgisinin daha geniş çevrelerce paylaşılabileređi bir yapının oluşturulması ile ve organik tarım tarafları desteđi ile organik tarım potensiyel getirilerini daha hızlı sađlamasına önemli olumlu bir katkı sađlayacaktır. Türkiye'deki organik tarım ürünleri pazarı gelişecektir ve dünya organik ürün pazarlarıyla daha çok rekabet edebilecek konuma gelecektir. Organik tarım ürünleri tüketiciler için sađlıklıdır. Diđer yandan organik tarımın doğaya olumlu etkisinde bu çalışmada ele alınmıştır.

TABLE OF CONTENTS

	Page No.
ABSTRACT	ii
ÖZET	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
ABBREVIATIONS	vii
INTRODUCTION	1
1. DEFINING ORGANIC AGRICULTURE THROUGH HISTORICAL PERSPECTIVE	4
1.1 What Is Organic Agriculture?	4
1.2 History of Organic Agriculture	6
2. ORGANIC AGRICULTURE IN THE WORLD	8
2.1 Organic Agriculture in the World	8
2.2 Organic Agriculture Producer and Consumer Groups	23
2.3 Regulations for Organic Agriculture	24
2.3.1 International Federation of Organic Agriculture Movement (IFOAM)	27
2.3.2 Codex Alimentarius: the Organic Agricultural Guide	28
3. ORGANIC AGRICULTURE IN THE EUROPEAN UNION	29
3.1 Application of the agricultural support policies in the EU	29
3.2 The Common Agricultural Policy of the EU	29

3.3 EU's price, Market Regimes and the Financing of Agricultural Policy	30
3.3.1 Development of the EU Common Agricultural Policy	30
3.3.2 Common Agricultural Policy Tools	39
3.3.3 Agricultural Market Policy	40
3.3.4 Agricultural Prices	41
3.3.5 Aids	42
3.3.6 Limitations	43
3.3.7 Rural Policy	44
3.3.8 Financial Framework of the EU Agriculture	48
3.4 Agricultural Policy and Support for Agriculture in the EU	51
3.5 Organic Agricultural Sector in the EU	54
3.6 Development of Organic Agriculture in Germany	59
3.7 Organic Agriculture in England	63
4. ORGANIC AGRICULTURE IN TURKEY	65
4.1 Organic Agriculture Numbers in Turkey	65
4.2 Organical Agricultural Information In Turkey	81
4.3 Main Benefits of Organic Agricultural in Turkey	82
4.3.1 To Protect the Water	83
4.3.2. To Protect Soil Erosion	84
4.3.3 Revenue for Producers High Quality Products for Consumers	87
4.4 Sustainable Organic Farming	89
4.5 A Comparison of Organic Agriculture Sectors between Turkey and the EU	92
4.6 The Common Agricultural Policy, Agenda 2000 and World Trade Organization	94
CONCLUSION	99
SUGGESTION	102
BIBLIOGRAPHY	105

LIST OF TABLES

	Page No.
Table 1.0 The gradation of the countries that make organic agriculture and their portions within the organic agriculture fields and their numbers of organic	10
Table 1.1 Land areas under organic management hectares (By the end of 2003)	18
Table 1.2 Organic Hectares of Countries	19
Table 1.3 Organic Hectares of Countries	20
Table 1.4. The countries that have organic agriculture legislation	25
Table: 1.5 EU Common Budgets 2005- 2006	49
Table 1.6 Allocation of Funds between CAP Expenditures and Rural Development Measures for the Period 2000 and 2006	53
Table 1.7 The Financial Support Paid to Organic Arable Land and Grassland in 2001	55
Table 1.8 Total Hectares of Organically Managed Land in the European Union 25	58
Table 1.9 Organic Export Numbers Per Years	67
Table 1.10. The datas of the organic outputs between the years from 2002 to 2007	69
Table 1.11. The Development of the Organic Agriculture in Turkey	70
Table 1.12 Production of Organic Products 2001- 1007	71
Table 1.13. Turkey Organic Agricultural Crops and Production (Quantity: ton)	72
Table 1.14. The organic agriculture export of Turkey to the years	72

LIST OF FIGURES

	Page No.
Figure A. The dispersal of the organic agriculture field in the World to the continents, 2006	8
Figure B. The dispersal of the organic agriculture business to the continents, 2006	9
Figure C. The top ten countries of the organic agriculture business in the world, 2006	15
Figure D. The organic agriculture fields to the continents, 2005-2006	15
Figure E. The dispersal of the natural organic agriculture fields to the continents, 2006	16
Figure F. The organic agriculture fields with their certificates	17
Figure G. Total Area under Organic Management: Share for Each Continent (By The End of 2003)	21
Figure H. Total Number of Organic Farms: Share for Each Continent (By The End of 2003)	22
Figure I. Number of Organic Farms and Acreage under Organic Cultivation	60

ABBREVIATIONS

AFSIC	Alternative Farming Systems Information Center
CAP	Common Agricultural Policy
EC	European Community
EEC	European Economic Community
EMU	European Monetary Union
EU	European Union
GMO	Genetically Modified Organism
GDP	Gross Domestic Product
GNP	Gross National Product
IFOAM	International Federation Of Organic Agriculture Movements
MARA	Ministry Of Agriculture and Rural
UK	United Kingdom
US	United States

INTRODUCTION

The major European nations formed a community nearly 60 years ago after realizing the benefits of a union. After facing the devastated effects of the Second World War, the Member States of the EU realized how important agricultural products are. The Common Agriculture Policy (CAP) of the EU remains as one of those prior areas which became a reality after the Member States started pooling their coal and steel resources. Following certain structural changes the community transformed into a union. Turkey applied for an associate membership, in line with the Article 238 of the treaty of Rome.

On the other hand Turkey is also a member of some other Western Organizations. Turkey became a member of the Organisation for Economic Cooperation and Development (OECD), which was then labeled as the Organization for European Economic Cooperation in 1948 and then the North Atlantic Alliance Organisation. The Customs Union which has been established with the European Union is the most important milestone in this relationship. However the final aim of full membership status is still not be achieved until today.

Nowadays the agricultural sector is centered on 'organic agriculture' with the questions of how could agriculture products be produced healthier meeting the demands of the consumers. On the other hand the world's population is increasing and arable land area remains the same thus, this necessitates some chemicals to be used to meet the demand for agricultural products. The chemicals used, damage both the environment and nature. Today friendly environment policies are necessary to protect the animals and the environment.

Organic agricultural is a new means of techniques used to remedy these hazards to the habitant. In generally, depending on a technological and scientific development, increase in use of agricultural inputs caused yield increase, but this affected adversely human health and environment. These issues were discussed first at Stockholm Conference held in 1972, later at Rio and Kyoto Conferences held in 1992. Organic agriculture movements gained speed with these activities. Today organic agriculture is a big sector covering more than one hundred countries in the world. Depending on the

development in the world, organic farming sector developed in Turkey. Today this sector has more than 57 thousand hectare and 18 thousand farmers in Turkey.

These organic products could not be considered just as agricultural products. There are organic products used in different sectors such as in textile industry or furniture industry or in such industries which increase organic market shares. Organic agriculture products' marketing is a feasible business area. Within the EU, the CAP is not only related with agriculture purely, it has close relations with other policy realms such as consumer protection, sustainable development or environmental requirements, which are other policy areas the Union is trying to expand within its borders.

This study aims to underline the importance of organic agricultural sector between Turkey and EU, and some utilities of organic agriculture to Turkey. To that end, in the first chapter the study will briefly summarize the history and evolution of organic agriculture. To understand the benefits of organical agriculture it is necessary to review organic agricultural history. Besides the aforementioned information, this chapter gives the definition of organic agriculture as well.

Organical agriculture producer and consumer groups subsection is laid down in the second chapter. In the second chapter the study compares different organic agricultural practices in the world. Different countries from different continents have developed organic agricultural markets.

Considering this organic agriculture in the EU, is the third chapter's title. Agricultural policy and support for agriculture in the EU is analyzed in this chapter from the beginning of organical agricultural sector in the EU. To emphasize the importance of organical agriculture in the EU, some statistics has been given in this section as well. Development of organic agriculture in Germany is another sub title in the third chapter because of being one of the two important markets in Europe. Germany and the United Kingdom (UK) have the largest markets representing over half of all European revenues. The British organic fruit market, valued at EUR 330 million, is the largest in Europe.¹ In this regard Organic Agricultural in Great Britain is another subtitle.

¹ "The European Market for Organic Fruit and Vegetables", Organic Monitor, June 2005, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?report_id=304982, on 21.03.2006

Organic Agriculture in Turkey is the fourth section's chapter. The main question behind this study is what kind of benefits Turkey would get if it attributes more importance upon organic agricultural policies? The study also analyzes certain statistics of Turkish organic agricultural sector. Considering this organic products data in Turkey, is another subsection in the fourth chapter. Regarding to our research question the main prospective benefits of organic agriculture to Turkey is under one subtitle.

Today organic farming is a big and dynamic sector in the world covering over one hundred countries with 24 million hectares production areas and 23 billion USD market values. The area of certified wild harvested plants in the world is at least 10.7 million hectares. Organic agriculture developed in Turkey depending on development in the world. It was started in the mid-1980s due to demand from importing countries. According to the latest sources, in Turkey a land area of 57.001 ha is under organic management with 18.385 farmers. The number of organic products produced in Turkey has increased from 8 to over 300 presently. The major organic products exported are dried sultanas, dried apricots, figs and hazelnuts. Recently a wide range of products such as frozen vegetable and fruits, fruit juice and concentrates, rose and rose products included our export. In 1994 national regulation on organic agriculture was prepared and published in harmony with the European Union Regulations. The National Regulation of 1994 was revised according to the amendments of the EU regulation and new Turkish Regulation was published on 11 July 2002. The new law for Organic Agriculture was issued in 2005.

In the conclusion part the studies findings and certain comments on them have been explained, especially on a subject remaining in the suggestions part.

1. DEFINING ORGANIC AGRICULTURE THROUGH HISTORICAL PERSPECTIVE

1.1. What Is Organic Agriculture?

Organic agriculture can be defined as follows: Organic farming differs from other farming systems in a number of ways. It favours renewable resources and recycling, returning to the soil the nutrients found in waste products. Where livestock is concerned, meat and poultry production is regulated with particular concern for animal welfare and by using natural foodstuffs. Organic farming respects the environment's own systems for controlling pests and disease in raising crops and livestock and avoids the use of synthetic pesticides, herbicides, chemical fertilisers, growth hormones, antibiotics or gene manipulation. Instead, organic farmers use a range of techniques that help sustain ecosystems and reduce pollution.² In another definition: “Organic agriculture is holistic production management systems which promotes and enhances agroecosystem health, including biodiversity, biological cycles, and soil biological activity”.³ Organic production systems are based on specific and precise standards of production which aim at achieving optimal agro-ecosystems which are socially, ecologically and economically sustainable. A more detailed definition of organic production is made by the Council Regulation No. 834/2007 as;

Organic production is an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources, the application of high animal welfare standards and a production method in line with the preference of certain consumers for products produced using natural substances and processes.⁴

² European Commission, Agriculture and Rural Development, Organic Farming, Retrieved from; http://ec.europa.eu/agriculture/qual/organic/def/index_en.htm on 22.05.2005

³ FAO/WHO Codex Alimentarius Commission, 1999, *cited in* ANPED Working Group, “Agriculture, Biosafety and Biodiversity”, *Briefing Paper*, Retrieved from; www.anped.org/media.php?id=66 -

⁴ European Council (EC) No 834/2007 of 28 June 2007 ‘ on organic production and labeling of organic products and repealing regulation (EEC) No 2092/91, Official Journal of the EU, L 189/1, Retrieved

Terms such as 'biological' and 'ecological' are also used in an effort to describe the organic system more clearly. "Requirements for organically produced foods differ from those for other agricultural products in that production procedures are an intrinsic part of the identification and labelling of, and claim for, such products".⁵ Organic agriculture is alternative farming system which aims to adjust natural balance. If organic agriculture products produced and packaged by an investor with an organic agriculture production method these are organical products. In other words Organic agriculture summarized as agricultural production methods where every stage from production to consumption is under control.

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, insectives) 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 ".⁶

Different organical agriculture definitions underline sustainable system for agriculture. This increases the vital practice property of organic agriculture in the long term⁷.

from; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF> on 20 July 2008.

⁵ From the FAO/WHO Codex Alimentarius Commission Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods, GL 32-1999, (Rev.1 - 2001), Retrieved from; <http://www.fao.org/organicag/doc/glorganicfinal.pdf> on 23. 04. 2006

⁶ Nadia El-Hage, Scialabba & Caroline, Hatam (2002). "Organic Agriculture, Environment and Food Security", *FAO*. December 25,2004, Retrieved from; http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/Y4137E00.Htm on 29.12.2004

⁷ "Role of Organic Agriculture in Combating Desertification", International Federation of Organic Agriculture Movements, *Annual Report 2004*, Retrieved from; http://www.ifoam.org/organic_facts/benefits/pdfs/IFOAM_Role_of_OA_in_combating_desertification.pdf

1.2. History of Organic Agriculture

Milestones in organic agricultural history ease the understandings of ecological agriculture development from beginning to today. 1920's is the beginning of organic agriculture in the world. Ecological Agriculture had an important place in the 1930's. In 1930s a politician named H.Muller in Switzerland initiated the organic movement.⁸ Conventional Agriculture took it's place and became known by high number of consumers because of Green Revolution.

The term Green Revolution is used to describe the transformation of agriculture in many developing nations that led to significant increases in agricultural production between the 1940s and 1960s⁹. In the 70's the organic movement focused on raising awareness on the importance of buying locally grown food.¹⁰ It took time for Ecological Agriculture to take former consequence until 1970's. Consumers are becoming more and more eager to learn about what they are actually consuming.

In the 1970s, global movements concerned with pollution and the environment increased their focus on organic farming. As the distinction between organic and conventional food became clearer, one goal of the organic movement was to encourage consumption of locally grown food, which was promoted through slogans like "Know Your Farmer, Know Your Food".¹¹ In 1972, the International Federation of Organic Agriculture Movements, widely known as IFOAM, was founded in Versailles, France, and dedicated to the diffusion and exchange of information on the principles and practices of organic agriculture of all schools and across national and linguistic boundaries.¹² Followed in the 1980's by a struggle to force the government regulation of organically grown food can be considered as another step. The 1990's resulted with

⁸ Sevgi Gencay İnceci (2002) "Ekolojik Tarım, Türkiye ve Dünyadaki Durumu" .*TUBITAK Vizyon 2023: Bilim ve Teknoloji Stratejileri-Teknoloji Öngörü Projesi.Çevre ve Sürdürülebilir Kalkınma Paneli*, Retrieved from; <http://vizyon2023.tubitak.gov.tr/teknolojiongorusu/paneller/cevresurdurulebilirkalkinma/raporlar/sonEK-2.pdf>

⁹ "Green Revolution: Curse or Blessing?", (2002) *International Food Policy Research Institute, (IFPRI)*, Retrieved from: <http://www.ifpri.org/pubs/ib/ib11.pdf>

¹⁰ "History of Organic Farming", Retrieved from; <http://one-change.com/blog/2006/07/history-of-organic-farming/> on 05.01.2004

¹¹ Retrieved from; http://en.wikipedia.org/wiki/History_of_organic_farming on 05.07.2004

¹² Ibid

these needed regulations in the form of legislation and certification standards.¹³ Organic agriculture sector peaked in 2000 - 2006 nearly all over the world.

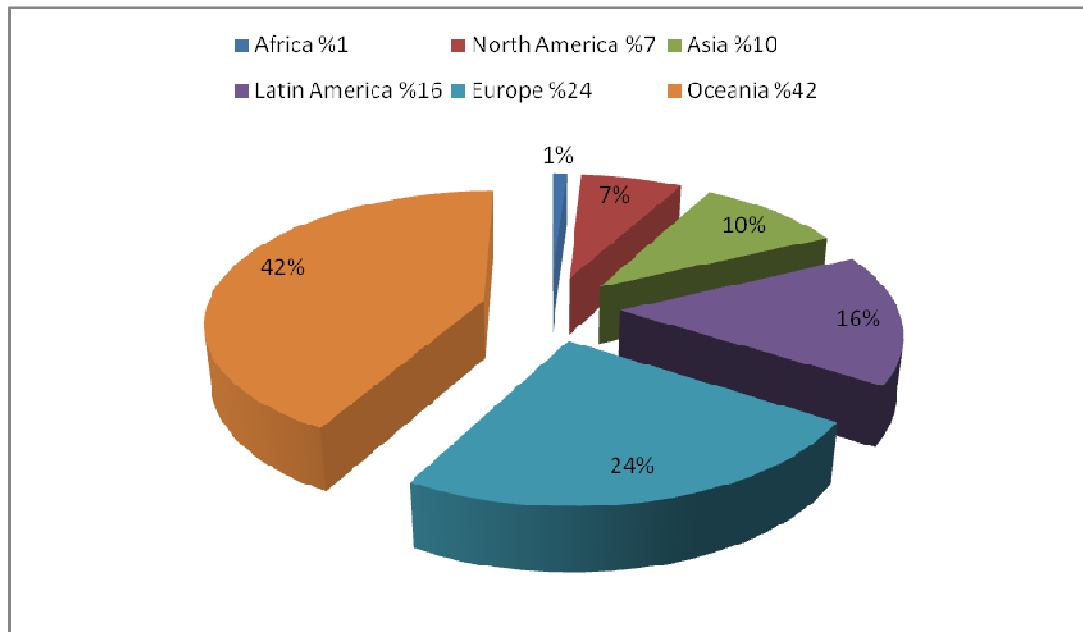
¹³ “History of Organic Farming”, op.cit.

2. ORGANIC AGRICULTURE IN THE WORLD

2.1. Organic Agriculture in the World

Organic farming in the world covers an area of 30.4 million hectares. This amount even increases to 60 million hectares when the natural or wild areas are included. Australia is the leading country with a 12.3 hectares area on organic farming. The income received in 2006 from organic products is about 40 billion dollars. In 69 countries around the world there are legal binding regulations on the organic sector, while in 21 countries these legislations are pending.

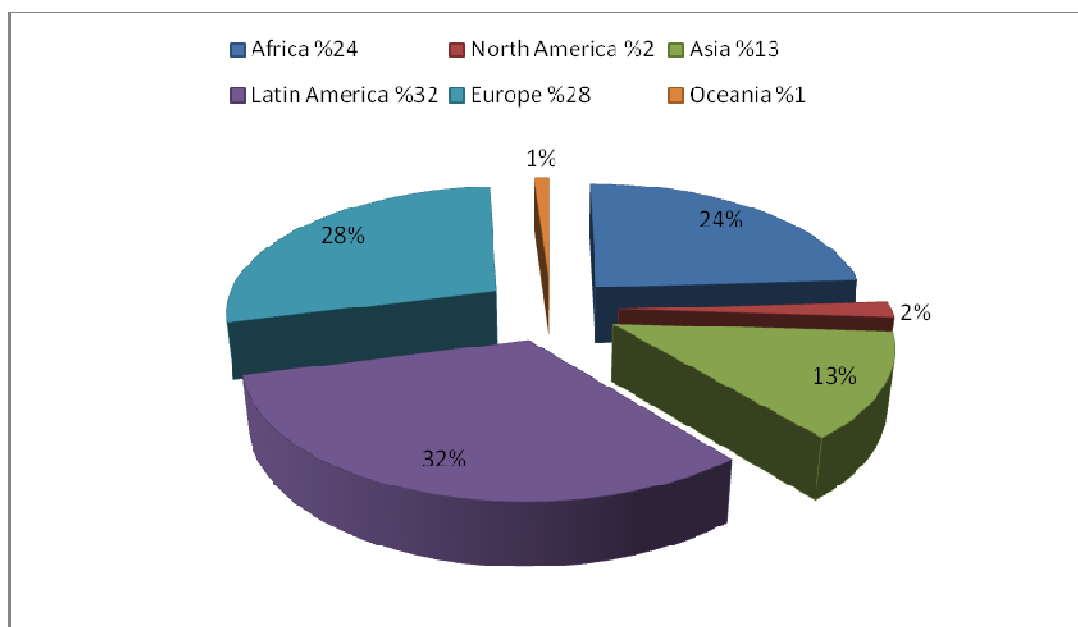
Figure A. The dispersal of the organic agriculture field in the World to the continents, 2006.



Source : Willer and Yussefi, 2008.

Total area in the world for organic agriculture is contained in Australia with 42%, in Europe with 24%, in Latin America with 16%, 10% in Asia, 7% in North America, and 1% in Africa.

Figure B. The dispersal of the organic agriculture business to the continents, 2006



Source : Willer and Yussefi, 2008.

According to the data in 2006, the total number of agricultural enterprises in the world contains 718.744. The highest level of these enterprises is in Latin America (See Figure B.) Latin America is followed by Europe, Africa, Asia, North America and Oceania.

Table 1.0 The gradation of the countries that make organic agriculture and their portions within the organic agriculture fields and their numbers of organic agriculture enterprise, 2006.

Country	Organic agriculture field (Hectare)	Its portion within the total organic agriculture field (%)	Its number of the organic agriculture enterprise
Avustralia	12.294.290	2,80	1.550
China	2.300.000	0,40	1.600
Argentina	2.220.489	1,70	1.486
USA (2005)	1.620.351	0,50	8.493
Italy	1.148.162	9,00	45.115
Uruguay	930.965	6,10	630
Spain	926.390	3,70	17.214
Brazil	880.000	0,30	15.000
Germany	825.539	4,80	17.557
England	604.571	3,80	4.485
Canada	604.404	0,90	3.571
France	552.824	2,00	11.640
India	528.171	0,30	44.426
Mexico	404.118	0,40	126.000
Austria	361.487	13,00	20.162
Greece	302.256	7,60	23.900
Czech Republic	281.535	6,60	963
Portugal	269.374	7,30	1.696
Ukraine	260.034	0,60	80
Poland	228.009	1,60	9.187
Sweden	225.385	7,00	2.380
Tunisia	154.793	1,60	862
Finland	144.558	6,40	3.966

Denmark	138.079	5,30	2.794
Switzerland	125.596	11,80	6.563
Hungary	122.765	2,90	1.553
Peru	121.677	0,60	31.530
Slovakia	121.461	5,80	279
Latvia (2005)	118.612	7,00	4.095
Romania	107.582	0,80	3.033
Turkey	100.275	0,40	14.256
Lithuania	96.718	3,50	1.811
Uganda	88.439	0,70	86.952
Estonia	72.886	8,80	1.173
New Zealand	63.883	0,40	860
Nicaragua	60.000	0,90	6.600
Colombia	50.713	0,10	4.500
Ecuador	50.457	0,60	137
South Africa (2005)	50.000	0,05	N/A
Holland	48.424	2,50	1.448
Dominican	47.032	1,30	4.638
Norway	44.624	4,30	2.583
Indonesian	41.431	0,10	23.608
Bolivia	41.004	0,10	11.743
Ireland	39.947	1,00	1.104
Syria	30.493	0,20	3.256
Belgium	29.308	2,10	783
Slovenia	26.831	5,50	1.953
Montenegro	25.051	4,80	15
Pakistan	25.001	0,10	28
Tanzania	23.732	0,50	22.301
Timor Leste	23.589	6,90	N/A
Ghana	22.276	0,20	3.000

Vietnam	21.867	0,20	N/A
Thailand	21.701	0,10	2.498
Azerbaijan	20.779	0,40	388
Paraguay	17.705	0,07	3.490
Sri Lanka	17.000	0,70	4.216
Venezuela	15.712	0,07	N/A
Cuba (2005)	15.443	0,20	7.101
Egypt	14.165	0,40	460
Saudi Arabian (2005)	13.730	0,01	3
Cote d'Ivoire	13.311	0,07	N/A
Hondurus	12.866	0,40	1.813
Guatemala (2005)	12.110	0,30	2.830
Moldova	11.405	0,50	121
Costa Rica	10.711	0,40	2.921
Chile	9.464	0,06	1.000
Madagascar	9.456	0,03	5.455
Vanuatu	8.996	6,10	N/A
Congo	8.788	0,04	5.150
Korea	8.559	0,50	7.167
Nepal	7.762	0,20	1.183
El Salvador	7.469	0,60	1.811
Samoa	7.243	5,50	213
Croatia	6.204	0,20	368
Japan	6.074	0,20	2.258
Philippines	5.691	0,05	N/A
Iceland	5.512	0,40	27
Panama	5.267	0,20	7
Bulgaria	4.692	0,20	218
Fez	4.216	0,01	N/A
Israel	4.058	0,70	216

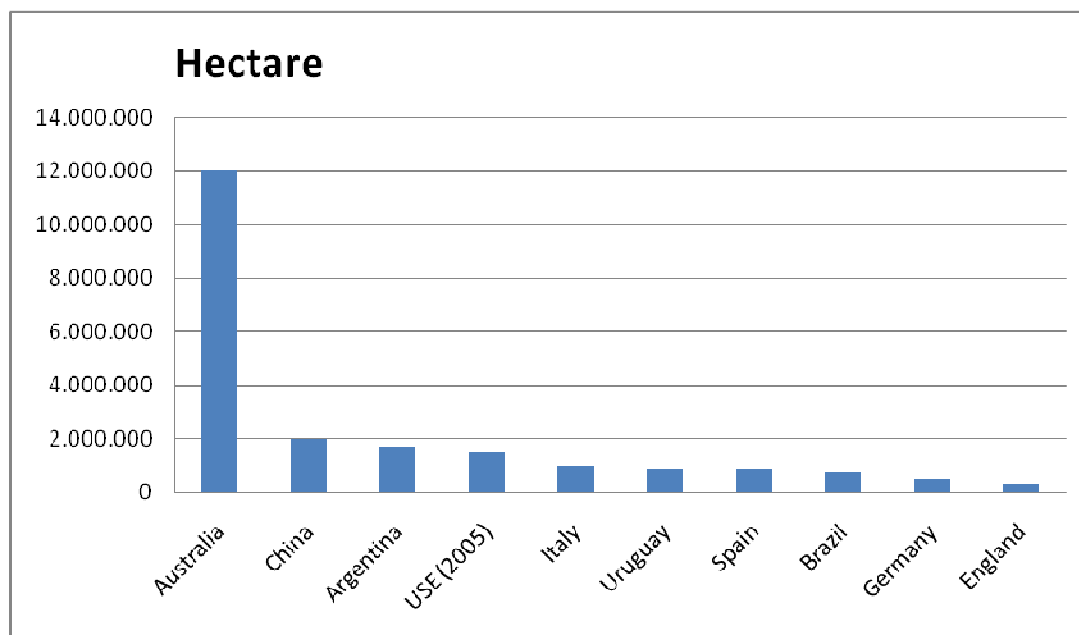
Burkina Faso	4.038	0,04	6.195
Luxemburg	3.630	2,80	72
Solomon Islands	3.628	3,10	352
Lebanon	3.470	1,00	213
Kenya	3.307	0,01	18.056
Russian Federation	3.192	0,00	8
Nigeria	3.042	N/A	N/A
Sao Tome and Principe	2.917	5,20	1.291
Ethiopia	2.601	0,01	784
Kyrgyzstan	2.540	0,02	392
Papua New Guinea	2.497	0,20	4.558
Kazakhstan	2.393	N/A	N/A
Zambia	2.367	0,01	9.524
Togo	2.338	0,06	5.101
Mali	2.330	0,01	5.840
Cyprus	1.979	1,30	305
Belize (2000)	1.810	1,20	N/A
Taiwan (March 2007)	1.746	0,20	905
Algeria	1.550	N/A	39
Kampuchea	1.451	0,03	3.628
Liechtenstein	1.027	29,10	41
Jordan	1.024	0,10	25
Albania	1.000	0,10	100
Malaysia	1.000	0,01	50
Serbia	906	0,02	35
Benin	825	0,02	1.132
Mozambique	728	0,00	1.928
Bosnia Herzegovina	726	0,03	329
Palestine	641	0,20	303
Cameroon	531	0,01	102

Rwanda	512	0,03	20
Macedonia	509	0,04	101
Jamaica	437	0,09	11
Malawi (2003)	325	0,01	13
Georgia	247	0,01	47
Bhutan	243	0,04	53
Armenia	235	0,02	35
Mavritius	175	0,20	5
Niue	159	2,00	61
Senegal	130	0,00	1.020
Guyana (2003)	109	0,01	28
Fiji (2005)	100	0,02	N/A
Gambia	86	0,01	N/A
Niger	81	N/A	N/A
Trinidad and Tobago (2005)	67	0,05	1
Malta	20	0,20	10
Iran	15	N/A	2
Hong Kong (2005)	12	N/A	20
Chad	0	0,00	36
Total	30.418.261	0,65	718.244

Source : Willer and Yussefi, 2008.

Organic agriculture is maintained in 132 countries around the world. (See Table 1.0) Australia ranks first with 12.294.290 hectares organic areas. The reason of Australia being first among the other countries is its climate and the obligation of animal certification using grassland. The organic agriculture area contains 0.65% of the total agricultural land area.

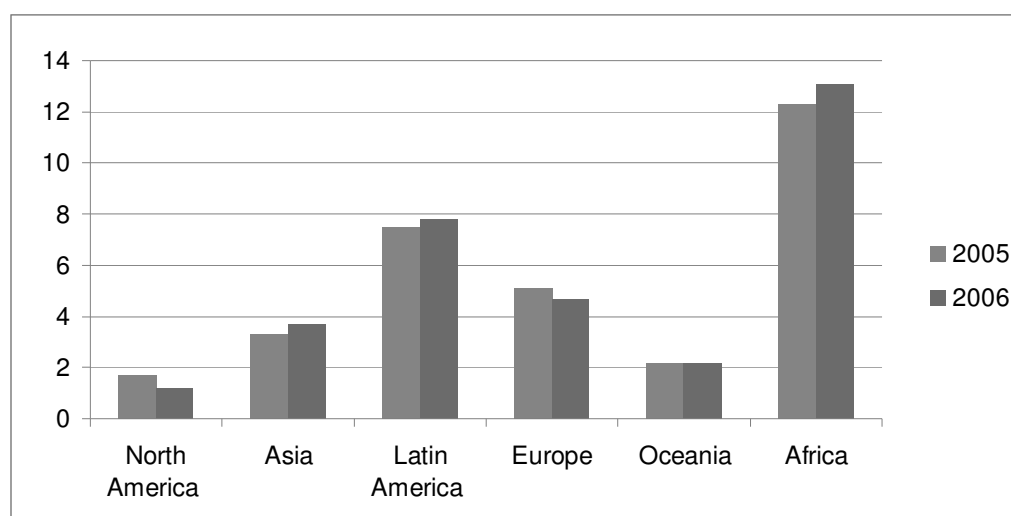
Figure C. The top ten countries of the organic agriculture business in the world.2006



Source : Willer and Yussefi, 2008.

According to the world organic agricultural areas the top ten countries are Australia, China, Argentina, USA, Uruguay, Spain, Brazil, Germany and UK. (See Figure C.) These countries contain 78% of the world's organic agricultural area.

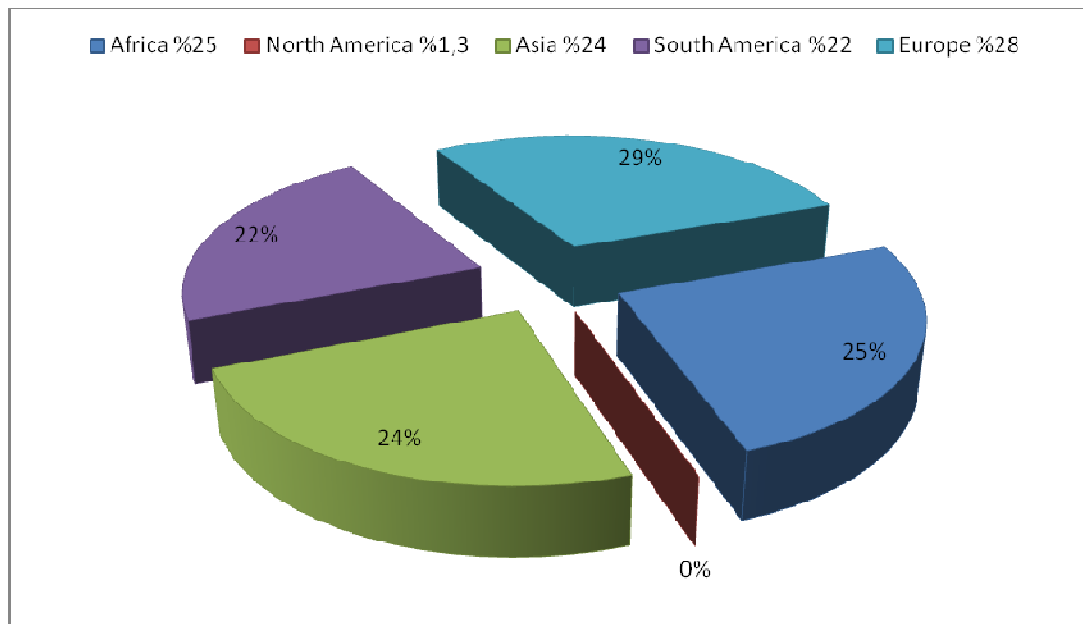
Figure D. The organic agriculture fields to the continents, 2005-2006.



Source : Willer and Yussefi, 2006 and Willer and Yussefi, 2008.

The data of 2005 and 2006 shows that an increase in organic agriculture in Asia, Latin America and Europe has occurred. However in Oceania there has been no increase or decrease on this amount. But in North America this amount has been decreased. (See Figure D.)

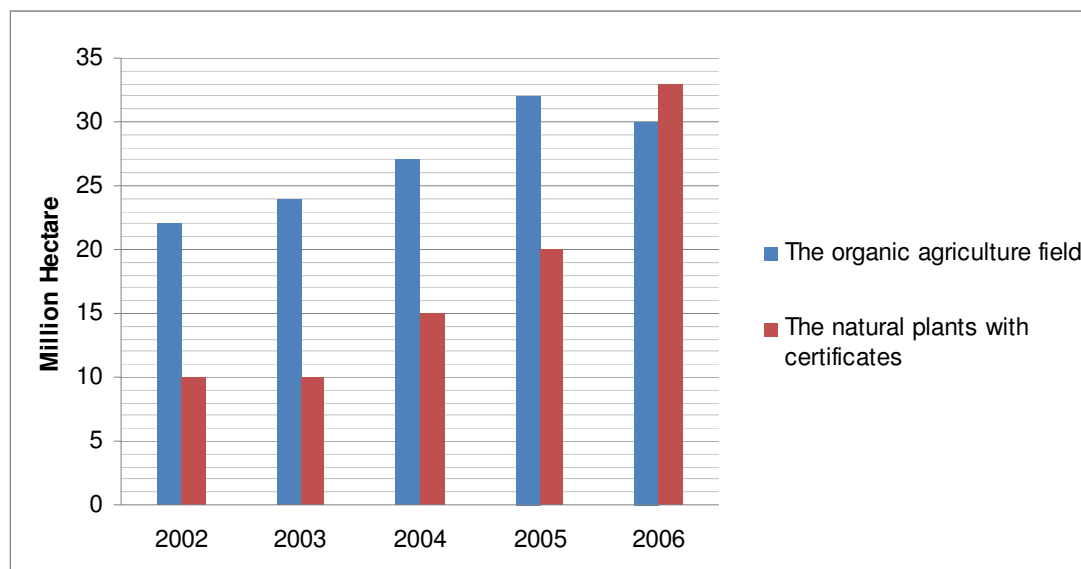
Figure E. The dispersal of the natural organic agriculture fields to the continents, 2006



Source : Willer and Yussefi, 2008.

The 2006 data shows that according to the organic agricultural areas, the certificated natural organic areas are very high. This amounts to 33 million hectares. The distribution of these areas is shown in Figure E according to the continents.

Figure F. The organic agriculture fields with their certificates.



Source : Willer and Youssefi, 2003-2008.

Survey studies show in 2000, in USA, \$3.9 billion is spent for organic foods in conventional retail sale marketplaces. Organic foods are found in 20,000 of natural food sales points and in 73% of other market places. In 2002, organic food market's value is of \$23 billion. Organic production becomes common globally; whereas consumption is mostly in developed industrial countries. North America and West Europe have the highest share.¹⁴

The world market for organic products reached \$25 billion in 2005, with the U.S. portion increasing to \$14.6 billion. The demand for organic crops currently exceeds supply and growers everywhere are encouraged to consider the potential for organic production.¹⁵ In 2006, Organic Agriculture is performed on 31 millions of hectares of fields. China has made the greatest progress in this matter and certified 3.5 millions hectare of rural land for organic agriculture.¹⁶ Table 1.1 below shows the land areas

¹⁴ Helga Willer Minou Youssefi, (2004) "World of Agriculture Statistics and Emerging Trends 2004", Retrieved from; http://www.soel.de/inhalte/publikationen/s/s_74.pdf on 03.06.2005

¹⁵ Retrieved from; <http://www.ucs.iastate.edu/mnet/organic06/home.html> on 21.08.2006

¹⁶ Retrieved from; <http://www.organic-europe.net/world/2006-main.asp> on 20.04.2006

under organic management hectares by country. China's share by the end of 2003 is around 300.000 hectares.

Table 1.1 Land areas under organic management hectares (By the end of 2003)

ORGANIC HECTARES	
Australia	11.300.000
Argentina	2.800.000
Italy	1.052.002
U S A	930.810
Brazil	803.180
Uruguay	760.000
Germany	734.027
Spain	725.254
UK	695.619
Chile	646.150
France	550.000
Canada	516.111
Mexico	400.000
Bolivia	364.100
Austria	328.803
China	298.990
Czech Republic	254.995
Greece	244.455

Source: SOEL Survey 2005¹⁷

¹⁷ Retrieved from; http://www.soel.de/english/research/former_projects/index.html on 12.02.2007

France has the eleventh biggest land under organic management by the end of 2003. Canada is the first country which was adapted organical market regulations at national level. In Canada organic agricultural market value is more than 1 billion dollars. These advantages and preferences of consumers helped Canadian organic agriculture market to develop rapidly. In Austria important developments seemed in organic agriculture market. In some agriculture products market organic agriculture share is %20 of total market.

Table 1.2 List of Organic Hectares per Country

ORGANIC HECTARES	
Ukraine	240.000
Sweden	207.488
Bangladesh	177.700
Denmark	165.146
Finland	159.987
Peru	150.000
Uganda	122.000
Portugal	120.729
Hungary	113.816
Switzerland	110.000
Turkey	103.190
Paraguay	91.414
Kenya	90.000
India	76.326
Romania	75.500
Ecuador	60.000

Tanzania	55.867
Slovakia	54.478

Source: SOEL Survey 2005¹⁸

In Africa, important organic products producer countries are; Kenya, Tanzania, South Africa, and Morocco. Foreign certification bodies give control services in Africa. Israel, because of EU laws, has an advantage in organic agricultural products export to EU. India and China are other important exporters in Asia. In India and China foreign control and certification bodies work. Indonesia is also another important organic agricultural country in Asia.

Table 1.3 Organic Hectares of Countries

ORGANIC HECTARES	
Poland	49.928
Latvia	48.000
South Africa	45.000
Netherlands	41.865
Estonia	40.980
Indonesia	40.000
New Zealand	40.000
Norway	38.176
Kazakhstan	36.882
Tunisia	33.500
Colombia	33.000
Japan	29.151

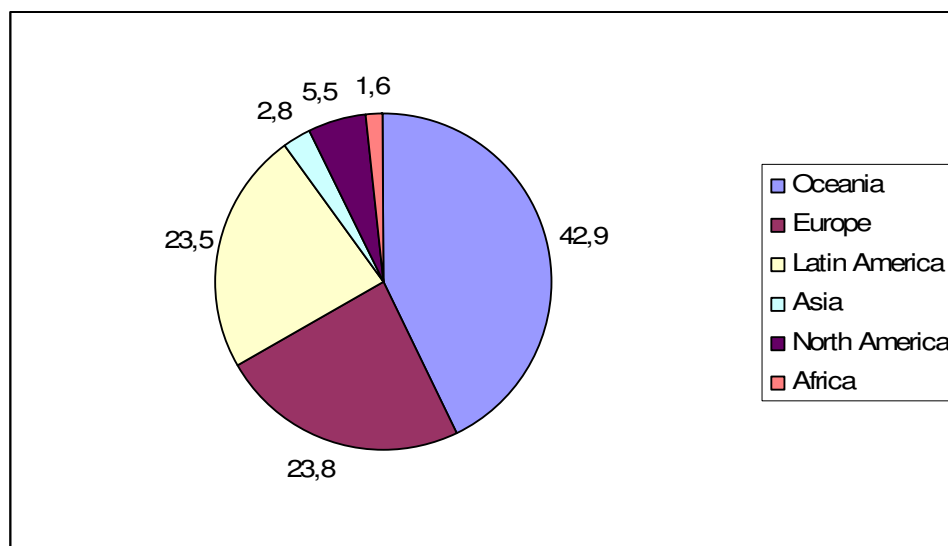
¹⁸ Retrieved from; http://www.soel.de/english/research/former_projects/index.html on 12.02.2007

Ireland	28.514
Belgium	24.163
Lithuania	23.289
Slovenia	23.280
Dominican Republic	22.151
Morocco	20.040

Source: SOEL Survey 2005¹⁹

In Latin America Brazil and Argentina are two important organic agriculture exporters. These two countries consume 15% of organical products, and export rest of their organic agricultural production. Argentina has 17% of all organical agriculture areas and Australia has the biggest organical agriculture areas 44% of all world world. Turkey has the twenty ninth biggest land area under organic management shown in Figure G below.

Figure G.Total Area under Organic Management: Share for Each Continent
(By The End of 2003)

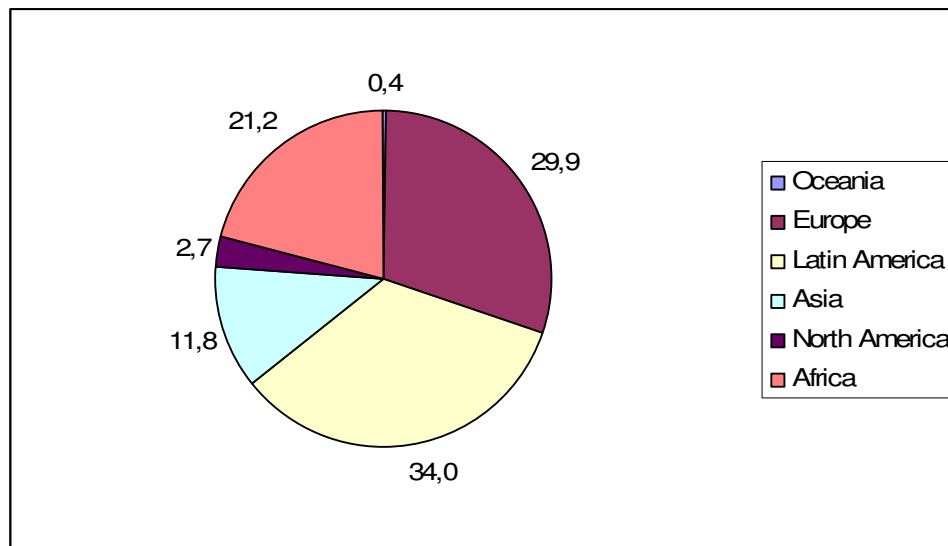


Source: SOEL Survey 2005²⁰

¹⁹ Retrieved from; http://www.soel.de/english/research/former_projects/index.html on 12.02.2007

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 quiet small when compared to the shares of the three leading continents.

Figure H.Total Number of Organic Farms: Share for Each Continent
(By The End of 2003)



Source: SOEL Survey 2005²¹

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%.

²⁰ Retrieved from; http://www.soel.de/english/research/former_projects/index.html on 12.02.2007

²¹ Retrieved from; http://www.soel.de/english/research/scientific_conference.html on 12.02.2007

2.2. Organical Agriculture Producer and Consumer Groups

Farmers have different point of views in their business. In a research 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 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.

The ‘environment conscious but not organic’ group apply ‘environmentally friendly’ farming techniques but they are not organic producers yet.

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; it is actually a life style for this group of farmers.²²

Consumers of organical agriculture orient directly organical agricultural market. It is possible to divide these consumers into two groups; ‘regular organic consumers’ and the ‘occasional organic consumers’.²³

²² Ika Darnhofer, Walter Schneeberger & Bernhard Freyer (2005) ‘‘Converting Or Not Converting To Organic Farming in Austria: Farmer Types and Their Rationale. Agriculture and Human Values’’ *Agriculture and Human Values* 22: 39-52, Retrieved from; <http://www.springerlink.com>

²³ Toralf, Richter. (2004) ‘‘Are The Organic Consumer Labels Conveying The Right Message?’’, *European Hearing on Organic Food and Farming-Towards a European Action Plan*, Retrieved from; http://orgprints.org/00002657/01/richter-2004-action-plan-publikationen_powerpoint.pdf

'Regular organic consumers' buy organic products and do not care about the prices of organic products. There are 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.²⁴

'Occasional organic consumers' do not have enough information about what organic production is. Therefore, they buy an organic product rarely or buy only a specific product or accidentally buy an organic product. In general, this group of consumers is not informed about the difference between 'organic' and 'natural'.²⁵ In the mean time, typology of consumers may vary depending on countries to subject.

2.3 Regulations for Organic Agriculture

Organic production has been started in the USA since the late 1940s. From that time on, the industry has increased from experimental garden plots to large farms with surplus products sold under a special organic label. Food manufacturers have developed organic processed products and many retail marketing chains specialize in the sale of 'organic' products. This growth required a need for verification that products are indeed produced according to certain standards or even regulations. Thus, the organic certification industry also developed for securing the legal basis.

More than 40 private organizations and state agencies which are known as certifiers currently certify organic food, but their standards for growing and labeling organic food may show diversity. For instance, some agencies may permit or prohibit different pesticides or fertilizers in growing organic food. In addition, the language contained in seals, labels, and logos approved by organic certifiers may show difference. By the late 1980s, after an attempt to develop a consensus of production and certification standards, the organic industry petitioned Congress to draft the Organic Foods Production Act

²⁴ Andrew, Barkley (2002) "Organic Food Growth: Producer Profits and Corporate Farming", *Presentation at the 2002 Risk and Profit Conference*, March 1, 2005, Retrieved from; [http://www.wagmanager.info/events/risk_profit/2002/Barkley .pdf](http://www.wagmanager.info/events/risk_profit/2002/Barkley.pdf)

²⁵ Richter, op.cit,

(OFPA) defining what ‘organic’ food is and the legal procedures. One of the basic standards was introduced by IFOAM in 1980 about legal procedures to be followed when producing organic food. In Turkey the first piece of legislation can be seen on 24.12.

1994 in the official newspaper, which introduced the act of ‘producing organic food according to the methods of ecological awareness’, this was followed by the Organic Agricultural legislation accepted in 2004. There are 64 countries which have adopted organic regulations in the world. In 48 of these countries these regulations are binding, where in 13 of them is not. In countries like Australia, New Zealand, India, the regulations only cover exporting rules. The list of these countries can be seen in Table 1.4.

Table 1.4. The countries that have organic agriculture legislation

Country	The state of legislation
European Union Countries (27)	Current
Albania	Obsolete
Croatia	Current
Iceland	Current
Macedonia	Current
Moldova	Current
Montenegro	Current
Norway	Current
Serbia	Obsolete
Switzerland	Current

Turkey	Current
Avustralia	Only export legislation
Bhutan	Obsolete
China	Current
India	Only export legislation
Israel	Only export legislation
Japan	Current
New Zealand	Only export legislation
Philippines	Obsolete
South Korea	Current
Taiwan	Current
Thailand	Current
Argentina	Current
Bolivia	Obsolete
Brazil	Current
Canada	Obsolete
Chile	Current
Costa Rica	Obsolete
Dominican Republic	Obsolete
Ecuador	Current
El Salvador	Obsolete
Honduras	Current
Mexico	Obsolete
Paraguay	Obsolete
Peru	Obsolete
USA	Current
Ghana	Obsolete
Tunis	Current

Because of the diversity of regulations, some international organizations have been established to initiate a common view towards harmonizing these laws and regulations. For instance 'The International Task Force on Harmonization and Equivalency in Organic Agriculture', In 2003 the Food and Agricultural Organization was established. IFOAM and the UN Conference on Trade and Development have been established.

2.3.1 International Federation of Organic Agriculture Movement (IFOAM)

IFOAM is a non- profit organization containing more than 750 members from 108 countries. The 30 years of history of IFOAM has proven that the proponents of organic agriculture embody an impressive agent of social and ecological revolution. It all started in 1972 when the President of the French farmers' organization, Nature et Progrès conceived of a worldwide demand to come together to guarantee the future for organic agriculture and from there, people working in alternative agriculture came together from, initially, as far apart as India and England. The German-speaking countries, as well as France, were also sites of the youngest IFOAM activities. Canada, too, produced key early participation, and by the 1980s, IFOAM had leaders in the USA, attracted involvement from African agents of organic agriculture, and launched a unique and fruitful relationship with the Food and Agriculture Organization of the United Nations (FAO).

Throughout its history, the organization has constantly been successful at: fostering active debate, networking beyond the borders of class, gender, and region; continually improving organizational structure, policies, standards; attracting volunteers and overcoming financial challenges; working with the diversity of organic movements; producing standards which provided a model for major laws and voluntary standards, (Codex Alimentarius, EU, FAO); and integrating scientific expertise and business into the emotional realm of organic agriculture.

2.3.2 Codex Alimentarius: the Organic Agricultural Guide

The Codex Alimentarius is a collection of internationally recognized standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety. Its name derives from the Codex Alimentarius Austriacus. Its managements are developed and maintained by the Codex Alimentarius Commission, a body which was established in 1963 by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO). The Commission's main goals are stated as being to protect the health of consumers and ensure fair practices in the international food trade. The Codex Alimentarius is recognized by the World Trade Organization as an international reference for the resolution of disputes concerning food safety and consumer protection.

3. ORGANIC AGRICULTURE IN THE EU

3.1 Application of the agricultural support policies in the EU

European Union's Common Agricultural Policy, as a function of agriculture is crucial to be directly linked to nutrition, as well as the bulk of the EU budget, is being separated to the CAP. The EU's oldest common policy is the the CAP, which was established to overcome potential food insufficiency and to pass, efficient, healthy and environmentally friendly production and infrastructure to meet the EU's dependence on foreign food.

3.2 The Common Agricultural Policy of the EU

The European Union Common Agricultural Policy, when established, under the EEC, now the EU, is the most important, the most comprehensive, but it is one of the most complex and most controversial public policy.

Article 39. of the Rome treaty, signed in 1957 aims establishing the Common Agricultural Policy with the scope of:

- Improving efficiency in agriculture
- Raising the living standards of farmers and their families
- To organize and stabilize agricultural products to the market
- Taking control of the supply of agricultural products
- To provide food to consumers at reasonable prices

Common Agricultural Policy and the regulation of agricultural markets of member countries for the development of agricultural policies is all tracked. Common Agricultural Policy was based on three basic principles.

1. Single Market
2. Community Preferences
3. Financial solidarity

At Community level and the creation of a single market for agricultural products in the market, free movement has been identified as the first principle. This was equaled with the creation of the single market prices.

The second principle of the Community preferences was to protect the EU countries and the products grown in this way under the Community of agricultural products and producing them in the protection of farmers against the third countries outside the Community

With the principle of financial solidarity in the financing of the Common Agricultural Policy and the use of the Community's common budget of the member states are expected to participate in this budget. The basis of the common agricultural policy, market and prices are based on the facts, in other words, the EU internal market to operate according to certain rules, even outside the borders of the EU common rules enforcement is foreseen.

3.3 EU's price, Market Regimes and the Financing of Agricultural Policy

Implemented on some agricultural products, the CAP as the net importer in the EU countries, in the early 1990s, together with the United States have a voice in world agricultural markets and have become net exporters.

3.3.1 Development of the EU Common Agricultural Policy

EU Common Agricultural Policy was created by the early 1960s until today which has undergone significant changes, although initially has reach the targeted goals largely so far.

The developments outlined in the Common Agricultural Policy can be handled within 4 phases. The first period was the creation of common policies for the transition period, while others continue their quest for reform in different directions which consist of the three periods. Since the establishment of community, the problems and developments that can be listed are summarized below under the phases.

Phase 1. (1958–1968) Initiating the regulations of the CAP: This period laid the foundations of the CAP, but Member States maintained their own national policies. This period included the most immediate results of measures taken for achieving the goal of the intervention areas of the market and price policy has been established. The main reason for this was to intervene as soon as possible to ensure self-sufficiency, and the market could be managed by a specific discipline to practice. This policy is generally known as "Common Market Order". During this period, the manufacturers and a large portion of their income were determined by 'public prices' within the framework and proposal from the Commission and adopted by the Council. In this context, price and market regulation, and protection of foreign trade required a step to be taken such as, applications, co-financing tools etc, which resulted establishing the European Agricultural Guarantee and Guidance Fund (FEOGA) in 1961, in other words, "Agriculture Fund" was established. In this way, on one hand while increasing productivity and production, marketing infrastructure while on the other hand creating products of farmers in the best way of evaluation was guaranteed, and for this purpose the budget was created under the Union in the first year, and 70% was allocated to this sector.

European Agricultural Guarantee and Guidance Fund (FEOGA), communities took part in the general budget, this was financed with general budget revenues. Most important sources of income of the Fund have been the duty. And divert funds to guarantee was made up of 2 parts. Depending on the year, this was approximately 25% of guaranteed portion of their financial resources of FEOGA's expenditures were divided. Warranty part; intervene in low product prices, production and processing aids, premiums, storage, purchase and where the withdrawal of aid "intervention in the domestic market" and "export subsidy financing" sources, such as expenditures were divided.

Direction of agricultural production and market products or product groups for the purpose of balancing a particular regime, was expressed to be subjected to market policy, the Common Agricultural Policy, which are among the oldest and most important tools. The essence of this system is to support agricultural production in the domestic market and protection against foreign markets. Rome Treaty created the legal basis for the first time in 1962, the CAP first came to life with the establishment of Common Market Layout. Elapsed time was set, except for alcoholic beverages, potatoes and about 22 product groups which are 90% of agricultural products, the "warranty" section was introduced under the Common Market and the products subject to the order have been detailed below.

These are:

—Agricultural production comprises 70% of the domestic market intervention measures and recourse to an external protection system, which includes the cereals, milk and dairy products, sugar and meat industry, for pork, table wine and some fruits and vegetables during a crisis in the market an immediate protection and intervention arrangement could be applied as well.

—Agricultural production covers approximately 25% of eggs and poultry meats, quality wines, flowers, fresh fruit and vegetables which were excluded from any price guarantee, these were applied to reference import prices and the difference in relieving the tax applied to the outside pressures as protection against the regulations.

—Additional production assistance was agreed to be made on oleh rapeseed, sunflower, cotton, pea and bean products which gather 2,5% of total agricultural products. The aim was to reduce the gap between EU and prices of imported products.

—A very small section of European Union agricultural production which consists of the flax, hemp, hops, seeds, silk and features was agreed to be paid under the lump sum principle according to the hectares or the amount of production.

The realization of the goals of the Common Agricultural Policy is an important function. The budget of the FEOGA's "orientation" section was lower than the "guarantee" section. In this section, more social and infrastructure investments, private investments in the less developed regions, agricultural infrastructure, resource-related investments have been transferred.

Phase 2 (1968–81) This period may be summarized as;

Gaining weight in price and market policy: The CAP's first years after negotiations created difficult conditions and high prices of the agricultural sector which resulted with support to farmers. To the outside (third countries) protection and assistance, was used as a policy tool, which aimed to improve farmers' income and production at highest level.

Mansholt Plan: During this period, the "Mansholt plan" for improvements and agricultural structures was acknowledged as very important.

Oil Crises: This period emerged in the years 1978–1979 oil crisis also affected the Community, increasing agricultural production but on the other hand low export rates resulted with increasing levels of stocks. Inflation and unemployment increased weight in the budget which required agricultural support, agriculture has become the priority sector. In the late 1970s, the increase in agricultural products, forced the prices to increase on the one hand encouraging the production role, while on the other hand, the consumers' prices were higher than world prices, so the budget (i.e the taxpayer) was forced to pay, which means transfers to agriculture from many consumers. Inventory costs increased due to high prices.

Enlargements: In 1973, Britain, Denmark and Ireland, the only participation was on sheep and goat meat beforehand, such as Common Market Regulations, but these were changed according to their membership which required new arrangements, as well as the amount of their contribution to the common budget.

Introducing common tax liability: According to increase of production, this opened the way for responsibilities among the members which alongside started an automatic reduction on prices (due to the divergence) especially on sugar and milk, this reduction was named as common tax liability.

Need of Reforms: On the one hand overproduction on the other hand high expenditures, which caused anxiety on non-agricultural sector, forced a reform in the CAP.

Phase 3 (1981-88) These years are referred to as painful years. This period can be summarized in major problems.

Over production: Starting with the previous period, the third term continued increases in productivity and thereby production made problems continue to grow.

Budgetary problems: Because of overproduction, the expenditures made, and the policies maintained according to these developments had increased a lot. This caused a divergence on the budget amounts according to the years following, and required more Money to be transferred to the CAP.

Quota on Milk products: The implementation of shared responsibility and duties accompanying dairy cattle to reduce the price divergence among the Member States required a fixed quato, although many were againts, became applied in 1984.

Enlargements: During this period, first Greece (1981), then Spain and Portugal (1986) became a member of the EU, and new market regulations with the participation in the number of participating products increased the expenditures.

Phase 4 (1988 and afterwards) During this period, reform was carried out. According to the earlier periods, this includes more radical measures.

1988 Reform: Besides the internal problems, in 1986 the Uruguay Round meetings forced the Community to take certain measures in economic relations with 3rd parties. These are;

Guarantee threshold: Products with overproduction amounts would be directed on a threshold, which would decrease the prices and aids. Different from quota, once the threshold is passed, guaranteed purchasing would continue but with a reduction of prices.

Elements balancing the Budget: According to the expenditures on CAP, which was not allowed to pass 74% of the GDP level, and to give a threshold to the expenditures, an Early Warrant System was introduced under the Commission. Besides, establishment of currency fluctuations against the reserve fund, inventory rules can be considered as other measures taken.

Non- use of Lands: The common market subject to manufacturers who want the layout to give up production, if necessary, leave the land blank in the case would receive of "set-aside" help to prevent the overproduction.

Reduction of production: Production that gives more products and to reduce input use efficiency by manufacturers whom could justify this would receive payments which would also prevent overproduction.

Change among production types: The products which were produced in low amounts were to be urged by the Member States and the 25% of that payment were to be directly taken from the common budget.

Early Retirement: The farmers willing for early retirements were to be encouraged, in this way the workers in the agricultural sector would be decreased and this would open the sector to the youth population.

Strict price policy: Up to 1988/89 the ECU declared the prices to be the same or reduced according to the currency in use. New agromonoter compliance with the inflation rate below the (national currency) vs. a price increase, the tax liability of the application expansion and increase provider, new stabilizers creation, ie production / intervention to guarantee the threshold amount to be narrowing, joint tax liability to increase intervention price and help the reduction of intervention in liability abatement, reduction in the monthly price increases (cereals, rice, rapeseed, sunflower) have been predicted.

With the 1992 reform the price policies started slipping towards aid supporting policies. This certainly was a supplement to the 1988 reforms as well as the result of the Uruguay Round.

Restriction of production: Reduction of price support, the decrease in farmer's income due to falling prices and compensating these with certain aids, was linked to the condition of land fallow, which aims to decrease the level of production. The price of oil seeds has been reduced to world prices, and with compensation the farmers have been encouraged to continue production. Those in the beef production sector received certain payments such as cut off season etc.

Support mechanisms for the protection of animal husbandry has been strengthened: Depending on certain conditions a variety of payments have been accepted, especially for the areas with disadvantages for animal husbandry.

Side measures: Planting trees on business lands, new arrangements for early retirements, tobacco market regulations, integration of management and control systems for flow of information, and databank bases for inspection of the common aids to be made can be counted as other measures.

WTO commitments and decisions to be taken: This is intended to bring export and import licenses, export subsidies and reductions have been determined to be in customs, a reduction in domestic support has been linked to the program.

Enlargements: in 1995 in Austria, Sweden and Finland with the participation of agricultural policy does not change the decisions together, these countries have been brought for the arrangements.

AGENDA 2000: Agriculture for expenditure of the Community budget to create a half to continue, agriculture and environment of the growing importance of relationships, the BSE (Dana Davis's disease) crisis and the importance once again agreed product safety and consumer rights, the WTO, the ninth round of preparatory talks for the EU manufacturers with the world increased competition has created concerns the scope of Agenda 2000.

Direct Payments: Under the reform procedure, importance was given to direct payments to transfer the expenditures from red box to blue box. By this way the decrease of prices, but by maintaining aids would urge the producer to compete with others.

Environmental precautions: Helping the environment by establishing a relationship between agriculture and environment, and a reduction in production intending to contribute for environmental protection (cross compliance).

Rural development: Regional disparities and divergence of rural areas, improving lands and conditions for agriculture, increasing the welfare of farmers, and strengthening rural development became an important concern.

Preparations for the new expansion: New candidates for the participation of legislative alignment, preparing the candidate countries for full membership for structural change, pre-accession financing needs to be managed by the "Agriculture and Rural Development in the Field of Special Accession Program (SAPARD)" was formed.

Reform of June 2003: On the one hand the agricultural sector, yet could not find the solution of the problem and the new WTO Talks preparations, on the other side new expansion in the agricultural areas of the new challenges emerging for the prevention measures to be an acute need for CAP reform, new opportunities have also brought. In

this context, the new reform proposals were adopted in 2003 and in 2004-2005 from the new regulations were passed.

Single Payment Program: A single farm payment will replace most of the existing premia under different common market organizations. Farmers will be allotted payment entitlements based on historical reference amounts received during the period 2000-02. Eligible hectares include any type of land except land used for growing permanent crops. Set-aside payments will be included, based on historical set-aside obligations, but can be activated only by an eligible hectare put into set-aside (excluding permanent pasture). Farmers receiving the new SFP will have the flexibility to produce any commodity on their land, except fruit and vegetables and table potatoes.¹ In addition, they will be obliged to keep their land in good agricultural and environmental condition. The single payment scheme can enter into force as of 2005 or at the latest 2007. Up to 25% of the current per hectare payments in the arable sector may remain linked to production. Alternatively, up to 40% of the supplementary durum wheat premium may continue to be tied to production.

Compulsory cross-compliance: The full granting of the SFP and other direct payments will be linked to the respect of a certain number of statutory environmental, food safety, animal and plant health, as well as animal welfare standards. Beneficiaries of direct payments will be obliged to maintain all agricultural land in good agricultural and environmental condition or face reductions in payments. The Commission will outline indicators in order to facilitate the application of cross-compliance, while control will rely on existing mechanisms

Modulation and financial discipline: A “financial discipline” mechanism will be applied in order to keep CAP spending in line with the budgetary ceilings laid down at the Brussels Summit of the European Council in October 2002. Farmers receiving aid more than 5000 Euro, will receive a 3% cut in 2005, 4% cut in 2006 and 5% cut in 2007 and afterwards. 20% of the funds collected by the Member State will be given back to use.

Strengthening Rural Development: EU money available for measures under the RDR will be significantly increased (see below) and the scope of instruments will be widened to promote environment, animal welfare, food quality and safety.

Other arrangements: The Single Payment Program is managed for farmers active in their production, and requires proving this with certain referances at time they apply.

Farm advisory systems: Issues like Farm management, environmental, food, health and animal welfare a mechanism for advice has been or is to be established by each Member State until 2006. This will become a must until 2010.

The CAP aims to improve agricultural sector, the welfare of the people working in this sector, as well as to improve conditions for worldwide competitiveness. However, overproduction, financial payments stil requires certain policies and regulations to be implemented.

3.3.2 Common Agricultural Policy Tools

Tools of agriculture policy are mainly implemented for production and market, social field, income, regional areas etc. The CAP due to its supranational nature owns in a lesser scope, and leaves certain decisions to national levels. The scope of the CAP is more about setting rules for fair competition among the Member States and for checks and balances system for the market. However, due to years the scope of the CAP has been widened. For instance social security or agricultural extension. Regional policies fall under the field of the Member States but due to certain projects the Commission has been involved in providing support.

In the framework of last reforms the scope of the CAP has been furthered with common actions taken and integrating all these as structural policies. For instance environemental concerns being integrated into this framework. Starting with 2000, the CAP measures can be listed under two groups which are market policies & direct payments and rural development policies.

3.3.3 Agricultural Market Policy

Even if the interventions, the scope of interventions have been to some degree reduced the market policies are still shaped through the general lines adopted throughout the history.

There are three market interventions applied in the Community. These are;

1. Price support and external protection application: Here specified various prices through the Community various conditions based on purchases made and within a particular pricing policy protects the product to third countries, output of imports to bring competition against to protect this time ranges customs barriers in bringing the World price above the price finds To ensure the export of agricultural products in exports has been moving back payments. However, for certain products and product groups are also benefiting from aid mechanisms.

2. Protection and future competition from foreign markets, and export subsidies: To protect some products not in the internal market but against third country products.to compete in a fair environment.

3. Prices and external protection to determine market without regulations: The use of only aid mechanisms.

Under these three conditions the system became as 'protection with aids' rather than 'protection with prices'

Carried out for internal and external protection these mechanisms help protectionism, price benefits, some limitations, and restrictions.

3.3.4 Agricultural Prices

Pricing described above as the main tool of market intervention is applied under three variations.

1. In the Union, prices which the manufacturer is willing to access.
2. The prices which are subject to procurement
3. Prices protecting the internal market against third party products.

Prices required to be accessible within the Union according to the manufacturer will to provide an income level, the direction of the market and may constitute an appropriate base price levels are determined by account. Even if this price does not accrue within the market, it does become an indicator. These prices; target price (cottonseed, olive oil), the basic price (pork), the reference price (white sugar, raw sugar), orientation price (wine).

The prices applied within the Union according to purchase are; the basic intervention price (grain), intervention prices (butter, skim milk powder), the basic price for private storage (beef), public intervention price (safety net for-beef), the trigger for special storage Price (olive oil), minimum price (sugar beets, cottonseed, dried figs, peaches and plums is preserved).

According to the third part products, the manufacturer is protected against future competition with a protection price known as input price (tomatoes, oranges, Madalina, lemons, table grapes, apples, pears, peaches, cherries, plums, cucumbers).

The shaping of prices have been mostly simplified. But the important innovation is that, the intervention purchasing has been limited with special cases, the prices slowing down import have been reduced, the manufacturers not being supported by prices, has opened

the way for reductions within the Community which makes Community products more easily exported on the worldwide market.

Intervention purchasing being automatic has been prevented; this way of purchase has been set on certain conditions. For instance on raw and white sugar this intervention purchasing is not made through the intervention price but on 80% of the reference price and other standards which are taken into consideration.

3.3.5 Aids

The reforms based on aids were shaped firstly with the 1992 reform and after with the 2003 reform. After many reforms the variety of aids has been abandoned, and these aids have been managed without having any effects towards overproduction. For many products the aids have been linked to the width of the land, reducing production, and environmental concerns. The 2003 reform abandoned many aids, the aid payment was no more based on product, but was based on the farmers receiving payments in previous years, which were all combined under the single farm payment. By this way the link between production and aids were cut, and this was linked with income support.

The products out of single payment system, which still receive aids are as follows;

- Aids (dried fodder, flax and hemp fiber, seed Games, silkworm)

- Production assistance (olive oil, processed peaches and plums, dried figs)

- Raw material assistance (processed tomatoes, Williams and rocha pear)

- Per Hectare aids (raisins)

- Prime and additional assistance (tobacco)

These aids are not unlimited but are payment within a framework.

3.3.6 Limitations

Limitations and restrictions under EU Common Agricultural Policy are managed as production quotas and warranty thresholds. These quotas are managed under different forms;

- Production quotas are managed under national and farmer bases. The manufacturers exceeding their quato receive a punishment mechanism.
- National Guarantee threshold is about a land or amount deserving aid in a Member State. If this threshold is passed then the aid is reduced to a certain degree.
- The Community guarantee threshold issue is a restriction to production binding all Member States. This restriction is applied not to the land or amount of production on one or two Member States but is about the total land area and amount produced.
- The national quato for overproduction requires the withdrew of that product from the market (threshold for fruits and vegetables) or amount for compulsory distillation (wine distillation threshold).

Common tax liability for sugar and gluckose is taken as production tax. The Communities protections on imports are managed on specific customs duties or according to the percentage import of that product. For instance, import products such as fruits and vegetables under certain periods (when the price is lower), the difference between starting prices and world prices were cut off according to tariffs. The starting price according to the WTO agricultural agreement which set a price level for 1986-88 was consolidated to ban import on a low price under that level. Besides this starting price the customs duties was also implemented. Although under the WTO the

agricultural sector agreement implemented a direction, the same agreement introduced the 'special protection preventions' which are still in use.

The regulations and standards on plants and animal safety are still used as tools for restricting import, and intervention to import and exports through licences are used as tools.

3.3.7 Rural Policy

Because of certain reforms and regulations and the expectations being satisfied there was not much need to focus solely on the agricultural sector. That is why the main interest here was to support the development of the rural areas which was an indirect way of developing the agricultural sector as well. Certainly the importance of supporting the development of rural areas in EU-25 was that the rural area was 92%, and the population living there about 56%. The GDP received from the rural was about 45% and the labour employment in this sector was 51%, playing an important role. The EU-25 statistics show that agricultural upon employment is 13% which is 5% of the GDP.

All these reasons starting from 2000 made rural development ranking right after the CAP with great importance. New employment opportunities and increasing the welfare of the rural population was the main aims. Besides, the importance of rural development with environmental concerns made it important.

Improving the conditions for living in rural areas (mostly countryside), supporting sustainable development, protecting the nature and environment required certain preventions to be taken. These can be classified under 4 areas;

1. Improving competition conditions for forestry and agriculture: (The support of Community will be shifted by 10% to this area, for projects 50% of contribution will be made, for pilot areas this contribution will be 75%) For instance, giving assistance to farmers and foresters, supporting farmers to attend programs about food safety, and

supporting farmers in the new Member States to compete in a new framework under the rules of the Community.

2. Rural environment and the improvement of the area (Community contribution for at least 25% of this area will be divided into a contribution to the program maximum of 55% in-compliance areas will be 80%.) For example, farmers in mountainous regions were to be paid for the natural obstacles, such as NATURA 2000 payments, agricultural environmental measures, sustainable forestry measures.

3. In rural areas, life quality improvements and economic diversification of activities (Community contribution for at least 10% of this area will be divided into a contribution to the program 50% - harmony in the region will be 75%), for example non-agricultural diversification of activities, micro enterprises, supporting the creation, promotion of tourism, village renewal, women re-joining the labor market for child care assistance basic services created opportunities.

4. LEADER approach (Community contribution for LEADER would be of at least 5%, and for new member States, this ratio will be 2.5%. Each Rural Development Program from the floor to the ceiling of the local action group of local development strategies for implementation should include a LEADER element.

These objectives can be addressed within the framework of the Rural Development Program which consists of 22 kinds of measures (Council Regulation No. 1257/1999 of). The agricultural environment-related ones are required; others are elected by member States. Disadvantaged zones, forest-buildings, other measures related to forestry, the investments in businesses, education, village renewal and development of all member States of the Rural Development Program has been implemented.

Rural Development Program to be included in the policy with the following elements.

1. Modernization of agricultural enterprises, recovery, income growth, living, working and production conditions and contributing to the improvement of information issues, in this issue of the EU projects assistance projects cost is 40%.
2. Young farmers to be in agricultural activities, for the first time under the age of 40 started agricultural activities or those up to 25 thousand Euros a single premium or premiums not exceeding the amount provided farm reduce the cost of establishing the purpose of interest subsidy is given.
3. Education, quality improvement, environment and forestry, vocational skills, expertise, hygiene, animal welfare, issues of information transfer. The purpose of vocational training of producers to better manage their farms, such as new product enhancements and brand creation to receive vocational training is to encourage them.
4. Early retirement, the business 55 years and above up to 15 years and until transferred to 15 thousand euros per year (not to exceed a total 150 thousand euro under the condition) will be paid until the age of 75.
5. Less developed regions and environmental limitation brought disadvantaged areas; Member States need to make the determination of disadvantaged areas and has to report this to the Commission. The total area of disadvantaged regions, countries must not exceed 10% surface area. Criteria for disadvantaged areas have been identified in the legislation. Less developed areas of the region and type of product depends on excess help to 25–200 Euro/ha.
6. Agri-environmental measures, good farming, natural resources, soil, genetic diversity, is to protect native culture and landscape. Participation in the program and the resulting loss of income to meet expenses, such approaches to promote products 600 EUR/ha years, multi-annual 900 Euro / ha, in other land use 450 Euro / ha is paid.
7. Business and marketing assistance, agricultural products processing and marketing stages of the development projects that will create a maximum 50% in Objective 1

regions, other areas are supported by the Union by 40%. However, retail sales and processing and marketing their products 3.ülke driven activities that are excluded.

8. Forestry in EU municipalities or their hands and private businesses operated by the Association forest enterprises are supported. This assistance is up to 40-120 Euro/ha. Compatible update to the environmental forestry, economic, ecological and social value of increasing investment and forest products processing and marketing of the raw be curative, has supported investments in pre-industrial processing. Here, the 25-year institutions for the costs of farmers' associations for a period of 725 Euro / ha, entities 185 Euro / ha are paid. Founded on the forests due to forest areas and set up folding to prevent the loss of income for a period of 20 years, the annual premiums are paid. However, annual contributions to pay for public forests are not eligible. The first 5 years will also contribute to administration costs.

Integration and development measures, these, land improvement, re-plot of farm management services, establishing marketing of quality products to basic services, rural development, rural heritage, diversification of activities, alternative income sources, water resources management, agricultural development and related infrastructure, tourism activities, environment, animal welfare, agriculture, the establishment of relations of production potential, for various reasons, this correction is damaged and protection, financial management are themes. If Member States may reduce this aid.

2003 CAP reform on agriculture fund largely depends on market policies to rural development policies which have been recording for it to any compulsory modulation mechanism (Single Payment System in the 5000 Euro from the higher benefit payments made those deductions) was created, the current measures in addition to some new measures have been brought. These are as follows; food quality measures (quality of participation in the program), environmental, health (public, animal and plant health), animal welfare and occupational safety, animal welfare (animal husbandry practices well beyond the measures), young farmers support, NATURA 2000 for implementation support (Birds and Habitats Directive), forestry support (more comprehensive), rural

environment and animal welfare for the increased co-financing rate, avantajsız regions (increased maximum support level)

2007-2013 financial period for the new rural development policy, while the properties of a single funding and programming tool, namely the European Agricultural Rural Development Fund, the EU priorities focused on a new rural development strategy, approach, control, evaluation and reporting, and the Commission with the Member States of responsibilities among a more open the division, bottom-up approach is reinforced.

3.3.8 Financial Framework of the EU Agriculture

Agricultural policies will ensure compliance, which can be described as the first step on January 14, 1962 No. 25/1962, signed by statute it was decided to establish FEOGA. Among the main principles in common CAP financial solidarity with the provision under FEOGA functions were achieved. Alone this is not a separate fund, FEOGA is part of the EU budget.

EU countries from about 40 years, applied without changes to the basic principles of agricultural policy reform efforts. Over the years, the share allocated to support agriculture in the EU common budget, despite lower income stability in the manufacturer takes into the 1960s, the share of agriculture in the 80s% today, while this ratio decreased from 40% potential. This, in the year 2013 is planned to be up to 35%.

Expenditures in the years since the beginning of FEOGA increased rapidly. Because the Common Market Order under the scope of products in which the number gradually increased, the Community's enlargement, the new countries with the participation in the budget resulted with the loads increase, agricultural production increased in a variety of new spending items to be created, over time, agricultural products prices recorded rise and helping new methods to be applied to per-costs has increased. Community's external relations and foreign trade policy to various countries within the framework of

trade concessions given to expenditures that although not directly create CAP in terms of agricultural products has consequences that affect the budget.

Table: 1.5 EU Common Budgets 2005- 2006

<i>Approval of Commitments</i>	<i>2005</i>	<i>2006</i>	<i>Oran(%)*</i>
1. Agriculture	41 930	41 660	38.8
CAP (except rural development)	37 570	37 290	
Rural development and Accompanying measures	4 360	4 370	
2. Structural Fundings	29 595	29 170	27.2
Structural Funds	27 080	26 660	
Abrasion Funds	2 515	2 510	
3. Internal Politics	6 480	6 600	6.1
4. Foreing Politics	4 600	4 610	4.3
5. Administration	5 000	5 100	4.7
6. Reserves	400	400	0.4
7. Pre accession aids	3 120	3 120	2.9
Agriculture	520	520	
Pre accession structural instruements	1 040	1 040	
Candidate Countries	1 560	1 560	
8. Enlargement	14 200	16 780	15.6
Agriculture	2 930	3 400	
Structural Proceedings	10 000	12 080	
Internal Politics	820	850	
Administration	450	450	
Sum of Approved Commitments	105 325	107 440	100.0

* Rates from 2006 budget

As can be understood from Schedule 1.5, the EU agriculture and rural development measures are still at the level of spending, which per year is 42 billion euros.

FEOGA consists of two parts which are "guarantee" and "routing". Guarantee section consists of the European Union agricultural market and price policy execution order payments, production and income assistance, exports during the support, intervention purchases for the conduct of Member States taken by the credit of the interest part of early retirement, disadvantaged regions, environmental limitation in areas the support, agricultural environmental measures, agricultural products processing and marketing to improve the rural development aid with the Objective 1 regions than in rural areas other measures accompanying the rural development assistance, some veterinary expenses, monetary reserves and CAP related to the flow of information relating to the expenditure measure does. Routing is part of Objective 1 regions that are not covered by agricultural issues in rural policy in the warranty section provides funding applications.

In 2007, with 2 separate funds have been established and FEOGA has been removed. This funds the European Agricultural Guarantee Fund (mainly tackles guarantee section expenditure) and the European Agricultural Fund for Development (mainly direction functions will be undertaken).

As a result, with this past and CAP reforms in the near future the EU will spend the first agricultural sector effectively to protect their products and production and to respond more quickly to changes in the market. Strict rules of the WTO within the framework of a competitive industry to get on a regular basis to the Community policy review, the EU, and to also manage agricultural activities, sustainable transportation and besides social and economical modifications are necessary to be made satisfactorily (Barber, 2008).

EU countries need to shape on agriculture as a social issue in this regard. In the form of market intervention rather than to create the market for farmers in the form of routing is done. In addition, rural development, especially with the support of the 2000s is increasing. Migrations from rural areas may thus help to prevent differences between the village and the city-level and requires a reduction in income and wealth between these areas.

3.4 Agricultural Policy and Support for Agriculture in the EU

EU applied some promotion methods in agriculture sector from the beginning of the establishment of the EU. Some of these subvane methods are taken from the Member States, like deficiency payments schemes (supplements to market-determined prices). Variable levies or import quota systems, market control systems, direct income payments, or as Non-price policies are other methods.

The Union is aware of managing organic farming with all its dimensions. That is why; it does not only focus on organic farming solely. The EU concentrates on several other areas which have close relations to improve the sector. These are the environmental implications, consumer protection and health, animal welfare, biodiversity etc. The EU has introduced several cross regulations in which all the areas listed above are included. It is evident that, improving the organic farming sector depends on a correlation of the aforementioned fields.

To equal treatment like in coal and steel, equal treatment in agriculture was vital in all Member States.

The objectives of the CAP are clearly defined in Article 33 of the Rome Treaty as follows;

“1-To increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilization of all factors of production, in particular labour.

2-To ensure there by a fair Standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture.

3-To stabilize markets.

4-To provide certainty of supplies.

5-To ensure supplies to consumers at reasonable prices”²⁶.

²⁶ ALI M EL-AGRAA, *The European Union History, Institutions, Economics and Policies*, Londres Prentice Hall, 1998, p.135.

Starting with the 1990's the EU started working towards organic and subsequent EU wide policies. This was followed by the Union's financial support for farmers to converting their production towards organic farming and, finally with the Copenhagen Conference, the European Action Plan for Organic Agriculture was accepted in 2001, which has been supported by the Council of Agricultural Ministers.²⁷

Besides the CAP, there are important innovations introduced by the Commission working on organic agriculture in close relations with its sub-committees. Certainly the Commission is not the only institution having importance in the decision making process.

For instance, the standing committee on organic farming consists of representatives of the Member State and a representative of the Commission has a seat as well. Alongside with the committee explained above, the Commission also works with two additional bodies which support its decision making. These are the Organic Farming advisory committee and the group experts for the promotion of organic farming.

One of the milestones initiated by the Commission to the Council and the Parliament was the 'European Action Plan for Organic Food and Farming' in 2004. According to this initiation, the Commission laid down the necessities to be implemented by the Member States which count to 21 actions. These priorities can be summarized as;

- " Giving the Commission greater possibilities for direct action
- Improving the collection of statistical data
- Allowing Member States to pop-up with aids
- Making regulations more transparent
- Ensuring the integrity of organic agriculture...]"²⁸

²⁷ Irena Baraskina, "Impact of Institutionalization on the Development of Organic Agriculture", 2009, Latvia University of Agriculture, Retrieved from; <http://www.mace-events.org/greenweek2009/5795-MACE/version/default/part/AttachmentData/data/Baraskina-Institutionalization%20on%20the%20Development%20of%20Organic%20Agriculture.pdf> , on 12.05.2009

²⁸ Commission of the European Communities, Communication from the Commission to the Council and the Parliament- European Action Plan for Organic Food and Farming, COM (2004) 415 Final, Retrieved from; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0415:FIN:EN:PDF> on 15.03.2005

The organic farming lies within both the rural development policy and the CAP. Organic farmers have the chance to receive support from the first pillar of the CAP through direct payments and price support measures.

Table 1.6 Allocation of Funds between CAP Expenditures and Rural Development Measures for the Period 2000 and 2006

Years	(Euro Million-1999 Prices)	CAP Expenditure (excluding rural development and accompanying measures)	Rural Development And Accompanying Measures
2000	40920	36620	4300
2001	42800	38480	4320
2002	43900	39570	4330
2003	43770	39430	4340
2004	42760	39430	4350
2005	41930	38410	4360
2006	41660	37570	4370

Source: Reform of the CAP²⁹

In EU, governmental support is based on three basic perspectives. Firstly; it should comply with competition rules, secondly; government support should be compliant with common agricultural policies of the union, thirdly; it should be compliant to international engagements of the union, especially obligations of World Trade

²⁹ Retrieved from; <http://europa.eu.int/scadplus/leg/en/lvb/60002.htm> on 16.07.2006

Organization in terms of agriculture.³⁰ If this is to be summarized, because of the CAP, being located in the Community pillar, the EU laws and regulations override national legislation through supranationalism.

Although many European countries financially support their farmers' organic production practices, when compared with the United States, the US has made small gains in this area. In Iowa, the Natural Resources Conservation Service (NRCS) offers organic farmers 50\$ per acre during their transition to organic farming through the Environmental Quality Incentives Program (EQIP).³¹

What has been recently introduced within the realm of agriculture is the agricultural reform (agenda 2000) in the EU integration process. According to this reform package, four key priorities have been laid down for improving the sector. These are "increasing the quality of agriculture, binding environmental protection with the CAP, opening new labour work and simplification of the EU agricultural legislation".³² These priorities also show convergence with the Lisbon Strategy of the EU, which is to support the sustainable development programme.

3.5 Organic Agricultural Sector in the EU

EU's agricultural policy is becoming more and more concerned in environment. In Amsterdam Treaty, environmental issues such as food safety and quality, animal health, environment decisions have been included within the treaty which started to be applied in 1999. Organic agriculture sector includes all these subjects. "Before 1999, organic agricultural sector grew by about 25 % a year between 1993 and 1998. The total organic food and drink market increased in value at retail level by 10.1% in 2005".³³ Within this, vegetables and fruits increased their share, while dairy and bakery products

³⁰ European Commission, Agricultural and Rural Development, State Aid, Retrieved from; http://ec.europa.eu/agriculture/stateaid/index_en.htm on 16.07.2006

³¹ Organic Agriculture, Iowa State University, Retrieved from; <http://extension.agron.iastate.edu/organicag/> on 17.07.2006

³² Cengiz Sayın, "Avrupa Birliğinde Organik Tarıma Yönelik Politikalar", *Akdeniz Üniversitesi Ziraat Fakültesi Dergisi*, 2002 15 (2), p.33.

³³ "Organic Food Assessment Market 2006", Key Note Publications Ltd. Feb 2006, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?cat_id=0&report_id=328446&q=Organic%20Food%20Market%20Assessment%202006&p=1

retained steady shares. The proportion held by meat (and, to a much smaller extent, fish) has grown, as has that accounted for by wines, fruit juices and hot beverages. However, baby foods and the range of other multi-ingredient items have lost share, although baby food sales are still on the rise. The overall market is now growing at a stable rate of around 10% per year, after much more substantial annual growth between 1996 - 1997 and 2000 – 2001.³⁴

Main organical agricultural producers in Europe are France, Austria, Germany, England, Italy, Spain, Switzerland, when we look at organical agriculture sector land enlargements we see Italy has the biggest organic agriculture land areas. In Europe garden plants take the least amount of production despite to these meadow plants and food plants have the biggest amount of production numbers. Argentina, Australia ,Costa Rica, Czech Republic, Hungary, Israel, New Zealand, Switzerland can export their organical agricultural products directly to the EU. Dominican Republic, Guatemala India, Japan, Chile, Turkey, U.S.A, Tunisia have applied for exporting organical agricultural products directly to the EU.

Table 1.7 The Financial Support Paid to Organic Arable Land and Grassland in 2001

Crop Area	Arable Land		Grassland	
Country	Support For Conversion to Organic Farming in Euro/ha	Support For Maintenance of Organic Farming in Euro/ha	Support For Conversion to Organic Farming in Euro/ha	Support For Maintenance of Organic Farming in Euro/ha
EU				
Austria	327	327	251	251
Belgium	301	223	297	174
Germany	185	160	177	153

³⁴ Ibid.

Denmark	60	81	81	81
Spain	92 1	55	128	77
Finland	147	103	147	103
France	244 2	-	107 2	-
Greece	183	183	135	135
Ireland	181	91	181	91
Italy	170	150	170	150
Luxembourg	200 3	150 4	200	150 4
Netherlands	147	136	136	136
Portugal	135	135	135	135
Sweden	140	140	54 5	54
UK	143	-	117	-
EU	177	129	154	113
Accession Countries				
Czech Republic	59	59	29	29
Slovenia	370	370	138	138

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 for maintenance of organic farming.

3 This is paid up to 70 hectares. Over 70 hectares only 150 Euro/ha are paid

4 This is paid up to 70 hectares. Over 70 hectares only 75 Euro/ha are paid

5 Additional payments for animals per hectare

Source: The European Market for Organic Food: Revised and Updated Analysis, Omiard Volume 5.³⁵

Comparing the organic cultivation of arable land with that of conventional, more information is required to improve the soil fertility in organic cultivation of arable land and there is usually a decline around 30% in the total yields unorganic arable land.³⁶

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 organic production. Instead, the total amount of subsidies was divided into three parts and each part was paid to the production, advice-research and the marketing areas of organic agriculture.³⁷

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.³⁸

The introduction of new 'decoupled' government payments in 2005 to organic farmers and growers, no longer related to organic production, these have created new interests in the market, with a doubling of requests for information received by the Organic Conversion Information Service (OCIS). Meanwhile, the Soil Association continues to

³⁵ Ulrich , Hamm & Friederike, Gronfeld (2004) *The European Market for organic Food.Revised and Updated Analysis*, Vol.5, OMIARD, Wales: The University of Wales, Aberystwth.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

promote the range of claimed health, environmental and animal welfare benefits of organic foods and drinks.³⁹

Table 1.8 Total Hectares of Organically Managed Land in the European Union 25

Year End	E U 15	New Members	EU 25
1990	292.599	19.170	311.769
1991	412.630	36.520	449.150
1992	553.473	41.301	594.774
1993	835.338	43.429	878.767
1994	1.065.981	47.477	1.113.458
1995 1	1.318.476	57.049	1.375.525
1996 1	1.593.178	67.601	1.660.779
1997 1	2.036.311	81.103	2.117.414
1998	2.287.639 3	163.360	2.450.999
1999	3.302.811 3	216.927	3.519.738
2000	3.823.306 3	320.264	4.143.570
2001	4.239.318	445.882	4.685.200
2002	4.886.979 3	510.882	5.397.013
2003	5.094.674 3	608.846 2	5.703.520
1 The data of 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 Emergind Trends 2005 ,IFOAM			

³⁹ “Organic Food Assesment Market 2006”, Key Note Publications Ltd. Feb. 2006, Retrived from: http://www.researchandmarkets.com/reportinfo.asp?cat_id=0&report_id=328446&q=Organic%20Food%20Market%20Assessment%202006&p=1

3 The data of EU 15 FOR 1998, 1999, 2000, 2002 and 2003 is taken from Eurostat, Agriculture and Fisheries, Statistics in Focus 31/2005

Source: Certified and Policy Supported Organic and In-Conversion Land in Europe.⁴⁰

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.⁴¹

3.6 Development of Organic Agriculture in Germany

Germany is certainly one of the countries with the longest tradition in organic farming, with its earliest roots dating back to the end of the 19th century. During this time, the so-called "Reformbewegung" (reform movement) developed its philosophical view of the connection between the health of the soil, the growth of plants and the health of mankind. "Reformhäuser" or reform shops were established where it was possible to buy the goods that were grown according to this view. In 1924 Rudolf Steiner outlined the principles of biodynamic agriculture and in the mid-thirties the Müller-Rusch biological-organical method gained ground. However, all these movements remained marginal and the reform shops were the only places where organic products were to be found.⁴²

In the early seventies, organic farming became more popular, and a plethora of small, independently owned Bioläden and Naturkostläden (organic food shops and natural food shops) spread throughout the country. They were solely dedicated to selling organic products, and their customers were mostly dedicated, even zealous supporters of

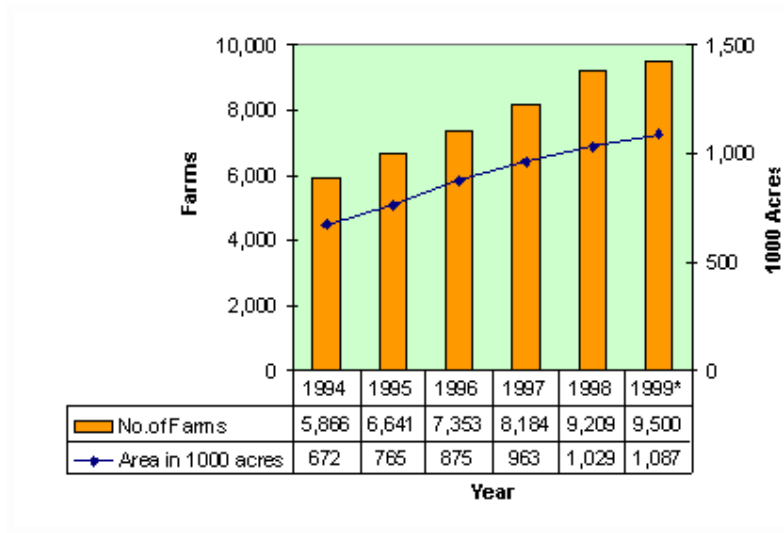
⁴⁰ Nicolas Lampkin, "Certified and policy-supported organic and in-conversion land area in Europe", Institute of Rural Studies, University of Wales, Aberystwyth, Foster and Lampkin, 2000, Retrieved from; <http://www.organic.aber.ac.uk/statistics/euroarea03.htm> on 03.08.2005

⁴¹ Hamm & Gronfeld, op.cit.,

⁴² Cultivating A Strong Organic Industry Since 1985, *Organic Trade Association*, Retrieved from; http://www.ota.com/organic/mt/export_3_3.html?printable=1

organic farming and alternative sales structures. While the nature of these shops and their approach has changed, in Germany the mostly independent Bio- and Naturkostläden continue to be the main force in terms of selling and promoting organic products.⁴³

Figure I. Number of Organic Farms and Acreage under Organic Cultivation⁴⁴



Until 1990, the number of farms devoted to organic agriculture remained below 1,000. The enactment of the EU rule 2092/91 for organic agriculture in 1991 triggered a rise in the number of farms and the acreage under organic cultivation that is still going on today. Since 1994, Germany has experienced a steady increase in organic acreage and number of farms.

In fact, the number of organic farms increased almost tenfold during the last decade and is now in the area of 9,500 farms, the third largest number of organic farms in any European country (see figure I.) The total organic acreage is more than 1,000,000 acres, second only to Italy. In 1999, 2.42% of the total German arable land was devoted to organic agriculture. The average acreage per farm is 105 acres, with a major increase in average farm size triggered by the conversion of large East German farms going organic

⁴³Ibid.

⁴⁴ Winfried Fuchshofen & Silke Fuchshofen, *Organic Trade Association's Export Study for US Organic Products to Asia and Europe*, 2000, Organic Insights Inc.

after the German reunification in 1990. One of the corollaries of the constant growth in numbers of farms and acreage has been that organic grain prices have dropped substantially, due to an oversupply situation. Germany, in the eightiest the biggest importer of organic grain in Europe, has become almost self-sufficient with respect to organic grain supply.

German organic farmers are organized in more than ten producers association, some of them with more stringent rules than the EU regulations. The Arbeitsgemeinschaft Ökologischer Landbau (AGÖL - Association of Organic Farming Organizations in Germany) is an umbrella organization comprised of nine of the bigger producer associations, accounting for 80% of organic farms in Germany.⁴⁵

In Germany, organic product distribution is made via conventional distribution channels and also by means of reform houses specialized in this field. Foods sold in there are often processed. Supermarkets provide 40% of organic food market in Germany, 80 % in England and 85 in Denmark.⁴⁶

Growth of food sector affects other conventional production in the sector and causes shrinkage in the volume. In Germany, BioFach organic trade fair organized in Nuremberg every year at the end of February is the one of the best ways to enter to the market. BiFach is accepted as the largest fair in organic food market. It is very crucial to make presence in this fair for those who intend to make trade in Germany. In 1999, 1300 participants exhibited their products to 21.750 visitors, of which 20% coming from out of Germany. Seminars held during the fair are also informing the visitors about the organic sector.⁴⁷

Food distribution channels Market Status in Germany:

Conventional Retailers : 39-48% (1.2-1.8 Billion Euros)

⁴⁵ Ibid.

⁴⁶ Retrieved from; http://ftp.fao.org/paia/organicag/2005_12_doc04.pdf

⁴⁷ Peter O. Kurz, (1999) “Germany: Organic, Voluntary Report”, *Foreign Agricultural Service, GAIN Report No: GM0971*, Retrieved from; <http://www.fas.usda.gov/gainfiles/199912/25546541.pdf>

Producer Brands : 14-17 % (400-600 Million Euros)

Independent Retailers : 14-17 % (300-700 Million Euros)

Alternative Distribution Channels : 16-20% (1.8-2.0 Billion Euros)

Natural Product Selling Stores reform houses: 30-37 % (1.07-1.1 Billion Euros)⁴⁸

Organic vegetable juices are less popular within European consumers. Most demand for organic vegetable juices is in Germany, which accounts for over 70 percent of European volumes, and this is due to the strong juice culture in the country.⁴⁹

In 2002, retail organic food sales are 890 million Euros and increasingly making its place in the market.⁵⁰ The German market is currently showing the highest growth with organic fruit & vegetable sales volume increasing by 14% in 2004⁵¹. Germany's organic market is a developed market. Food distribution channels in Germany shows sales channels progressed level. Datas given on sales volumes of organic agriculture products proves the importance of German organic market.

On the other hand, Turkey has a high potential of organic agriculture production. There are two more important properties obtaining this potential. One is Turkey's huge arable land areas and the other is the no use of chemistry products or medicine widespread in this huge arable land. At this point Turkey would receive benefits if importances to organic agricultural policies are paid for agricultural production. Then it will be easier to export to developed German organic market. This would make a shift of increase in export volume and consequently to unemployment which will decrease in mideum term and reflecting positive outcomes in long term for the agriculture sector.

⁴⁸ "The European Market for Organic Juices", *Organic Monitor*, Oct. 2002, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?report_id=19774

⁴⁹ Ibid.

⁵⁰ Kurz, op.cit.

⁵¹ The European Market For Organic Fruit and Vegetables, *Organic Monitor*, June 2005, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?report_id=304982

3.7 Organic Agriculture in England

The organic movement in the UK has a long history. Sir Albert Howard carried out his famous work on composts in India which goes far back to the 1920s. The oldest organic farms stretch back to the 1930s, when the rest of the world was just starting to follow the chemical alternative. The organic movement only gained coherence and an overall vision with the publication of Lady Eve Balfour's book titled as "The Living Soil" in 1946 and the establishment of the Soil Association a couple of years later.⁵²

These early pioneers only had a fairly tenuous link with the modern world of organic agriculture. There was no organic food premium, no standards, no regulations and a far broader interest in 'whole food' issues when compared with today. The priorities of the UK movement were mainly directed towards proving the theories expounded in "The Living Soil". To that end, the Pye Research Centre was established at Haughly in Suffolk, to carry out a series of long-term trials that continued over twenty years.⁵³

The total area of organically managed land in the UK peaked in 2001 - 2002 and 2002 - 2003, and steadied at a marginally lower level in 2003 - 2004 and 2004 - 2005, as the proportion 'in conversion' had fallen to a low percentage. More than 50% of organic land is in Scotland, with less than 40% in England and the remainder in Wales and Northern Ireland. Overall, nearly 90% is grassland, with less than 10% being arable or used for horticulture. The number of organic primary food producers peaked in 2002-2003, whereas the number of processors and importers steadied to a small yearly increase (albeit following a decline in 2002-2003).⁵⁴

According to the Department of Environment, Food and Rural Affairs (DEFRA) the total area of organic land and in-conversion land in the UK as at January 2005 was 690'269 ha. This represents a decrease of 1% from January 2004 and just over 4% of the total agricultural area (excluding common grazing) in the UK. The areas in England,

⁵² Organic Farming in the United Kingdom 2005, National Statistics: *Joint Announcement on Organic Farming statistics as of January 2006 (released Sept 28)*, 2006, Retrieved from; http://www.organic-europe.net/country_reports/great_britain/default.asp

⁵³ Ibid.

⁵⁴ "Organic Food Assessment Market 2006", Key Note Publications Ltd. Feb. 2006, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?cat_id=0&report_id=328446&q=Organic%20Food%20Market%20Assessment%202006&p=1

Wales and Northern Ireland have all increased slightly although the area in Scotland has decreased by over 10'000 ha (3%) from January 2004. Most of the decrease is permanent pasture. In conversion land in Northern Ireland has almost doubled which is permanent and temporary pasture.⁵⁵

United Kingdom has the ninth biggest land under organic management.⁵⁶ Britain has the most concentrated organic juice sector with the leading companies controlling about 85 percent of the market.⁵⁷

All of these datas and statistics of Great Britain's organic agriculture market is as developed as Germany's organical agricultural market, so the same export potential and other economic possibilities may happen in this market. Briefly, Turkey would receive benefits if agricultural production sides places more importances upon organic agricultural production policies.

Concluding for our case Germany and England are members of the EU, which have developed the organic markets. There are more countries showing the same market property in the EU. Those have the same developed organic agriculture sector such as France, Italy, Spain, etc. On the other hand organic food and drink market is forecast to grow at a slowing rate in the future, although still at an annual growth rate exceeding that for non-organic foods for most of the period to 2009⁵⁸ in Europe. All of these evidences show that the organic agricultural products are possible export with an important potential to EU.

⁵⁵ Organic Farming in the United Kingdom 2005, National Statistics: *Joint Annoucement on Organic Farming statistics as of January 2006 (released Sept 28, 2006*, Retrieved from; http://www.organic-europe.net/country_reports/great_britain/default.asp

⁵⁶ See Appendix Statistics about Great Britain

⁵⁷ The European Market For Organic Juices, *Organic Monitor*, Oct. 2002, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?report_id=19774

⁵⁸ "Organic Food Assesment Market 2006", Key Note Publications Ltd. Feb. 2006, Retrived from; http://www.researchandmarkets.com/reportinfo.asp?cat_id=0&report_id=328446&q=Organic%20Food%20Market%20Assesment%202006&p=1, on 25.05.2007

4. ORGANIC AGRICULTURE IN TURKEY

4.1 Organic Agriculture Numbers in Turkey

Before starting with organic agriculture in Turkey we need to implement the ratio of decrease of 12% from 35% of agriculture sector in Turkey in the pattern of Gross National Product. First law on organical agricultural in Turkey was promulgated in 1994. This law was revised in 2002. Organic farming law was adopted in 2004. This law was amended on 17 October 2006.⁵⁹

Currently, Turkish agriculture is economically unproductive, encouraging pre-modern social behaviour and relationship, and lacks of innovations. Agricultural modernization, today, means the development of sustainable practices, better valorisation of healthy, culturally sound Turkish products and fair relations between the producers and the consumers.

Turkey, due to its geographical location has a great advantage of both ecological and climatological conditions. The countries location provides a variety of products to be grown in different regions. In Turkey most of the consumers have not received enough information about organical agriculture, but in the last years this position started to change. This is the main difference between Turkey and the western states. As if we are to make a comparison between the evolutions of organic farming in both Turkey and the EU, it can be seen that, organic farming showed a bottom-up approach in EU Member States, in which the demand appeared from the farmers. But in Turkey it showed a top-down approach, in which the companies, business groups etc. demanded such a production from the Turkish farmers.⁶⁰

Turkey has a national system for registering and protecting Geographical Indications, certainly with some differences from the EU system. The definitions of designation of origin and geographical indication are similar to the EU *acquis*, although some details

⁵⁹ European Commission, Screening Report Turkey, Chapter 11, Agriculture and Rural Development, 2006, p.17, Retrieved from; http://ec.europa.eu/enlargement/pdf/turkey/screening_reports/screening_report_11_tr_internet_en.pdf on 28.01.2009

⁶⁰ Kürşat Demiryürek, ‘‘Dünya ve Türkiye’de Organik Tarım’’, Harran Üniversitesi, *Ziraat Fakültesi Dergisi*, 2004, 8(3/4) p.64.

show divergence, such as proof of origin which is does not involve in the specifications. The extent of protection of names is similar to the EU legislation. The extent of the Turkish legislation is wider than the scope of the EU legislation, as it also includes mining and industrial products and handicraft, but these could be compatible with the EU *acquis* as all products covered by the EU legislation are included. However, some registrations for living animals are questionable as there might be possible confusion with animal breeds. When compared to EU legislation, there are additional restrictions on names. Applicants can be groups of producers and natural or legal persons, but also consumers associations or organizations and public institutions. The two latter ones are not suitable under the EU *acquis*.⁶¹

Certainly the economic factors have also an important impact on the development of organic farming and through years consumers have started to learn more about organical agricultural production and consumers started to consume Turkish organical agriculture products. There are about 120 organical sale points in Turkey. On the other hand in Turkey some restaurants have organical food menus. Organic agriculture works are under the control of Ministry of Agriculture and Rural Affairs. Besides the MARA, private organizations can officially state products as organic. But, they must be registered by MARA, for a permit to such activities in Turkey.

Turkey has a high potential for the production of good quality organic products since it remains for a large part unpolluted, it is rich in bio and agro-diversity, and has low phytosanitary problems and numerous farmers who are not yet dependant over synthetic inputs. Moreover, as a candidate country, Turkey is going through the EU-harmonization process that will facilitate exchanges with EU countries by improving the regulation, the certification and inspection system; thus, the trustworthiness and fairness of the organic label. The harmonization is also a way to implement Rural Development policies from the experience of ancient and new Member States.

⁶¹ European Commission, Screening Report Turkey, Chapter 11, Agriculture and Rural Development, 2006, p.17, Retrieved from; http://ec.europa.eu/enlargement/pdf/turkey/screening_reports/screening_report_11_tr_internet_en.pdf on 28.01.2009

There are 6 agencies approved by the regional authorities of this Ministry to issue official certificates for organic production: These are IMO, ECOCERT, ETKO, SKAL and BCS and EKOTAR. A producer must apply for the certification to one of these agencies listed above. Because of high costs of certificates, some processors and exporters apply for an application on behalf of a number of individual producers. The certifying companies evaluate the producer's compliance with the Turkish organic regulations and product samples are taken at least twice a year.⁶² Turkey's organical agriculture export numbers in the last years are as follows;

Table 1.9 Organic Export Numbers Per Years

YEAR	QUANTITY(KG)	TOTAL(\$)
1998	8.616.687	19.370.599
1999	12.049.949	24.563.892
2000	13.128.934	22.756.297
2001	17.556.280	27.242.407
2002	19.182.859	30.877.140
2003	21.083.351	36.932.995
2004	16.093.189	33.076.319
2005	9.319.328	26.230.259

Source: AEGEAN EXPORT UNIONS⁶³

⁶² Hamide Gubbuk, Ersin Polat, Mustafa Pekmezci, "Organic Fruit Production in Turkey", *Journal of Fruit and Ornamental Plant Research*, Vol.12, Special Edition, 2004, p.27, Retrieved from; <http://insad.pl/wydaw/wydaw2004spec/full2004-2spec.pdf> on 06.01.2009

⁶³Retrieved from; <http://www.aegeanexporters.org/Asp/Content.Asp?MS=1&Content=1&MN01=12&MN02=0&MN03=0&MN04=0&MN05=0&ID=116> on 03.07.2007

Beginning of the year 2000, domestic market has started putting on sale organical agriculture products. In 2005 41% of organical agricultural exports are composed of fruits. Organical agricultural production has some advantages and restrictions in Turkey. Some advantages in organical agricultural are the sector arable land is not damaged because of conventional agriculture sector structure is open to new development like organical agriculture. There are some disadvantages in organic agriculture sector. One of these is organical agriculture knowledge in Turkey is not at the satisfactory level. Another one is the high prices of organical agricultural products in Turkey restricts organical agricultural sector development in Turkey. Conventional products can be taken as substitutes of organical products. Organic agriculture production ratio in Turkish agriculture sector is 1% but the production area is 0.4% of total agricultural area.

Although the share of agriculture in the Turkish economy has seen to fall over a period of several decades due to the increase in industrial and services sectors, it still accounts for a relatively larger share of total output and employment than in many other countries. Agriculture's share of GDP declined from 35 % in 1970 to 22 % in 1980 and to 11.8 % in 2003. Although the importance of agriculture within the GDP decreases with respect to years, a great part of the population is still earning their living from agriculture sector (30.3% in 2003). Crop production represents 67 % of the total agricultural production, livestock represents 26 % and the rest comprises forestry and fishery products.

Turkey is the largest producer and exporter of agricultural products in the Near East and North African regions. Despite the overall trade deficit of Turkey, the agricultural trade balance is significantly positive, providing some relief to external accounts. Trade liberalization and rising demand in the region resulted in agricultural product exports (excluding agro industry) rising to a value of approximately US \$ 2.5 billion in 2003 and accounted for 5.3 % of Turkey's total export earnings.

According to the data of 2007 the total sum of organic production consists of 431.202.79 tones. (See Table 1.10)

Table 1.10. The datas of the organic outputs between the years from 2002 to 2007.

Year	Farmer quantity	Production field (hectare)	Production quantity (ton)	Organic Processed Crop							
				Wet fresh (ton)	Dried (ton)	Frozen (ton)	Preserve	Concentrate	Other	Total production	Domestic market (ton)
2002	12.428	89.826.69	310.124.58	978.67	12.556.80	775.36	371.54	4.762.74	5.813.27	26.261.24	4.990.31
2003	13.044	103.190.25	291.875.92	9.169.92	19.236.07	1.980.08	411.35	5.213.56	7.106.96	43.143.82	15.274.85
2004	9.134	162.192.74	279.663.16	19.712.31	23.804.57	2.127.47	162.33	3.655.92	8.514.62	57.977.02	12.082.22
2005	9.427	175.073.59	289.082.32	24.003.57	26.569.24	3.167.58	201.56	7.754.53	18.476.48	80.173.81	29.454.17
2006	8.654	162.131.49	309.521.59	35.736.00	38.676.27	5.419.01	173.46	3.835.67	22.549.25	106.389.71	66.265.99
2007	10.553	135.359.75	431.202.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: Ministry of Agriculture and Rural Affairs, Agriculture Statistics (2002-2007)

Table 1.11. The Development of the Organic Agriculture in Turkey

Years	Grower Quantity	Crop Diversity	Total Field (hectare)
1990	313	8	1.037
1992	1.780	23	6.077
1994	1.600	20	5.196
1996	4.035	37	15.250
1997	7.417	53	15.906
1998	8.199	67	24.042
1999	12.275	92	46.523
2000	13.187	95	59.649
2001	15.795	124	111.324
2002	12.428	150	89.827
2003	13.044	179	103.190
2004	9.314	174	162.193
2005	9.427	205	175.073
2006	8.854	210	162.131
2007	10.553	201	135.360

Source: Ministry of Agriculture and Rural Affairs, 2008

Between years 2000 and 2007 the data shows that the highest level of products are cotton, wheat, tomatoes and apple. The 2007 data shows the 10 highest level of production is on cotton, apple, wheat, tomatoes, olive, grapes, lentils, nuts, apricot and strawberry. (See Table 1.11)

Table 1.12 Productions of Organic Products 2001- 1007

Crops	2001	2002	2003	2004	2005	2006	2007
Cotton	19.511	21.793	34.877	30.268	10.032	63.960	55.534
Apple	45.040	69.187	71.928	52.670	49.915	28.393	50.810
Wheat	31.139	19.752	21.379	31.194	13.756	26.515	43.915
Tomato	90.472	82.809	26.493	22.897	25.125	15.512	21.437
Grape	12.894	10.469	9.505	13.988	14.485	16.687	15.510
Olive	7.343	10.744	6.456	10.997	10.531	13.109	12.096
Lentil	5.862	17.012	11.781	9.135	6.093	19.050	10.071
Hazelnut	6.965	7.667	5.994	4.821	3.670	6.402	8.355
Apricot	13.634	5.940	13.278	9.019	9.628	6.491	7.767
Strawberry	3.353	3.293	3.497	4.098	4.604	4.571	7.234
Fig	8.293	9.473	8.112	15.793	6.821	7.563	5.938
Cherry	3.769	6.580	5.994	4.020	1.874	2.939	5.733
Papper	3.202	3.355	3.309	2.643	2.565	4.399	4.629
Chickpea	3.691	7.667	5.662	4.085	4.660	4.867	2.901
Berry	1.375	1.335	1.830	1.348	1.088	1.632	2.239
Onion	2.680	388	1.020	1.412	430	1.320	996
Pistachio	N/A	2.005	4.789	6.827	460	1.135	616
Honey	557	923	1.100	937	572	524	497
Olive oil	1.602	413	68	3	-	530	-
Total (Include others)	280.328	310.124	291.876	218.388	289.082	309.522	431.203

Table 1.13 Turkey Organic Agricultural Crops and Production (Quantity: ton)

Years	Quantity (kg)	Amount (\$)
1998	8.616.686.74	19.370.598.69
1999	12.049.948.72	24.563.892.01
2000	13.128.933.90	22.756.297.13
2001	17.556.279.64	27.242.406.92
2002	19.182.858.62	30.877.140.08
2003	21.083.351.35	36.932.994.88
2004	16.093.189.05	33.076.319.57

Source: The Center of the Development of Export, 2008.

Between the years 2001 and 2007 the production of organic products and the amount of production are laid down in Table 4.4. The amount of exported products can be analyzed according to the years 2005 - 2007 in Table 1.14.

Table 1.14. The organic agriculture export of Turkey to the years

2005	9.319.327.77	26.230.259.24
2006	10.374.493.90	28.236.617.42
2007	9.346.676.94	29.359.321.49

Source: Ministry of Agriculture and Rural Affairs, Agriculture Statistics (1998-2007)

Table 1.15: Organic Agricultural Area in Turkey for 2003

	Production Area
Organic Agricultural Sector (%)	103'190 hectares = 0.4% of total agricultural area
Total Agricultural Sector	26'000'000 hectares

Source: Ministry of Agriculture and Rural Affairs (MARA)⁶⁴

In domestic market raisin, fig, apricot and hazelnut are mainly consumed from consumers, and also consumers less prefer olive oil, honey, cereals, grain, leguminosae and jam are important consuming items. Another important point in Turkey is, Turkish people generally prefer domestic organical products. Table 1.16 shows organical agricultural production in Turkey by years and tonnes.

Table 1.16 Organic Agricultural Production in Turkey by Years (Tons)

Product Name	1999	2000	2001	2002	2003
Tomatoes	7095	15'532	90'472	82'809	26'493
Apples	24'038	50'136	45'040	69'187	71'928
Cotton	23'520	23'091	19'511	21'794	34'877
Wheat	15'983	4551	31'139	19'752	21'379
Lentils	3211	7163	5862	17'012	11'781
Olives	3310	12'875	7343	10'744	6456
Grapes	7182	7582	12'894	10'469	9'505
Figs	7840	7635	8293	9473	8113

⁶⁴ Organic Agriculture in Turkey 2004, Export Promotion Centre of Turkey (IGEME), Department of Agriculture, Retrieved from; http://www.organic-europe.net/country_reports/turkey/default.asp on 04.05.2004

Hazelnuts	5411	4114	6995	7667	5662
Sour Cherries	744	2143	3769	6580	5994
Apricots	10'822	40'799	13'634	5941	13'278
Pepper	553	1592	3202	3355	3909
Cherries	366	496	1375	1335	1830
Honey	1128	2582	557	923	1100
Olive Oil	1174	1620	1602	413	68
Onions	703	809	2 680	388	1022
Prunes	1	1	1003	2329	7933
Bulgur	12'000	18'795	0	0	0
Total (including others)	168'306	237'210	280'328	310'124	291'876

Source: Ministry of Agriculture and Rural Affairs (MARA)⁶⁵

Organic animal husbandry production in Turkey is not at a satisfactory level. Table 1.17 shows some statistics about organic animal husbandry production in Turkey.

Table 1.17: Organic Animal Husbandry Production in Turkey (Tons)

Product	2002		2003	
	Farms	Production	Farms	Production
Cow milk	4	40	6	48
Veal	4	8	6	8

⁶⁵ Ibid.

Sheep meat	4	5	6	4
Goat meat	0	0	2	0
Poultry meat	1	0	6	0.52
Eggs (in numbers)	1	25'000	6	34'500
Beehives (in numbers)	-	2000	-	12'653

Source: Ministry of Agriculture and Rural Affairs (MARA)⁶⁶

In Turkey domestic market consumes less food and vegetable. Depending on demand from abroad organical agriculture production started in Turkey in the late 1980's. Aegean district had the first organical agricultural activities in Turkey and Izmir took very important role in the begining of exporting organical agricultural products, because Izmir is an important harbour and, major production and processing facilities are located in Izmir. Table 1.18 shows exports of major organic agricultural products of Turkey. To have a better understanding of Turkey's benefits through the implementation of organic agricultural production there are statistics shown in the following pages.

In Turkey organic agriculture production and export started in 1984 to meet the demands from EU. In 1990 there were eight different types of agricultural products being exported. In 1998 exports were 8029 tonnes where as in 2002 this amount increased to 17037 tonnes. In 2002 there were 1947 farmers producing organical products. In 2005 there were around 10000 farmers and 6000 of them producing in the Aegan district. These figures show the growth of organic agricultural sector. Turkish organical agricultural sector performed well in the last couple of years which is reflected by the positive growth rates of number of farmers employed in the sector, total area of organically farmed areas and the total amount of products produced.

Most of organic production of Turkey is exported abroad. Nearly 95% of all organic production is being exported. The EU countries constitute the main export markets for Turkey, which are Germany, UK, the Netherlands, Italy and France being the main

⁶⁶ Ibid.

ones. Besides them, the US, Thailand, Canada, Australia and Japan are important export markets for Turkish products.⁶⁷

Table 1.18: Exports of Major Organic Agricultural Products of Turkey (Q: Quantity: Tons, V: Value: US \$ 000)

Products	2000		2001		2002		2003	
	Q	V	Q	V	Q	V	Q	V
Raisins	4252	4836	5412	4887	6115	5718	5677	7056
Dried Figs	2103	4074	2227	4764	2228	5537	2027	5166
Hazelnuts	1252	4226	1590	5457	1560	4755	1403	5107
Dried Apricots	1268	2741	1934	2805	1835	4044	1688	4734
Apple Juice	315	424	142	138	468	456	2528	3055
Frozen Fruits	185	252	1163	1368	892	1106	1212	1983
Cotton	175	299	92	184	411	623	865	1376
Pine Kernels	52	787	54	726	93	1534	70	1212
Lentils	979	806	1 097	841	962	655	1447	1025
Chick Peas	707	636	1035	827	1413	1113	1167	830
Frozen Vegetables	352	184	575	355	666	391	841	573
Anise, Fennel & Coriander Seeds	21	60	56	166	246	592	229	453
Honey	20	38	30	63	385	852	109	295
Pistachios	24	176	51	307	21	129	32	265

⁶⁷ Yasemin Erkut, "Turkey Organic Products, Organic Production", GAIN Report, Global Agriculture Information Network, 2006, No. TU6020, p.6, Retrieved from; <http://www.fas.usda.gov/gainfiles/200605/146197826.pdf>, on 11.02.2009

Olive Oil	15	48	5	12	25	65	54	174
Canned Cherries	25	12	92	126	57	89	88	146
Tomato Paste	1	1	13	11	116	86	134	142
Cracked Wheat (Bulgur) and Semolina	25	12	79	37	85	48	116	64
Prunes	275	321	351	460	139	236	6	24
TOTAL (Including Others)	13'129	22'556	17'556	27'242	19'183	30'877	21'083	36'933

Source: Aegean Exporters' Union

Agricultural sector is another subject between EU and Turkey. EU Countries are very interested in Agricultural sector in Turkey. Turkish agriculture sector is very important for the EU. Table 1.19 shows the major organic agricultural products export. This list shows the organical agricultural exports to EU countries are very important. Turkey will benefit more in future if demands from EU increases. This will be seen in the increasing revenues of the sector.

Table 1.19: Exports of Major Organic Agricultural Products by Countries in 2003 (Q: Quantity: tons, V: Value: US \$ 1000)

Products	Countries	Q	V
Raisins	Germany	2842	3476
	The Netherlands	771	843
	The UK	589	753

	Switzerland	448	608
	France	351	493
	Denmark	265	328
Dried Figs	Germany	945	2 428
	Switzerland	277	714
	France	226	659
	The UK	110	231
Dried Apricots	Germany	611	1 675
	The UK	370	1 111
	USA	272	712
	France	105	322
Dried Apples	Germany	83	253
Processed Hazelnuts	The Netherlands	47	166
	The UK	31	131
	Germany	22	78
	SPAIN	23	86
Shelled Hazelnuts	Germany	653	2337
	The Netherlands	142	494
	Switzerland	102	378
	The USA	99	374
Pine Kernels	Switzerland	35	624
Pistachios	Germany	22	186
Lentils	Germany	318	232

	The UK	304	175
	Italy	225	180
Chickpeas	The UK	244	157
	Italy	195	155
	The Netherlands	184	118
Canned Cherries	Germany	45	85
	The Netherlands	34	37
Tomato Paste	The Netherlands	58	55
Frozen Fruits	Italy	274	418
	Germany	260	355
	Switzerland	173	327
	Austria	159	297
Frozen Vegetables	Germany	274	189
	The Netherlands	177	140
	Belgium	172	119
	The USA	160	85
Dried Vegetables	Germany	54	251
Apple Juice	The Netherlands	1 530	1 673
	Italy	628	776
Honey	Germany	64	188
Olive Oil	USA	34	89
	Japan	10	40
Spices	Germany	48	191

Cotton	Thailand	274	418
	Bulgaria	155	231
TOTAL (Including others)		21 083	36 933

Source: Aegean Exporters' Union⁶⁸

When compared with other countries, Turkey has prosperity in its agricultural sector. However, like in all fields, due to the increasing level of competition and, the impacts of globalization, it certainly needs bringing innovations to this sector. The demands for organic products are increasing, however on the other hand the manufacturing of these products are not meeting the demand rates. That is why, developing countries like Turkey, have a great chance of developing their agricultural sectors for competing in today's markets.

Turkey is facing within the field of agriculture have been explained in detail in the progress reports which have been released by the EU. The population in rural areas is about 39% in Turkey, which is measured by TURKSTAT for the year 2004.⁶⁹ Nearly 67.5 % of the rural labor force is employed in agriculture.

Rural areas face problems of human resources which is about poor level of education and skills, insufficient institutional structure and farmer organizations to support rural development, insufficient development and maintenance of physical, social and cultural infrastructure, a high rate of dependence on subsistence agriculture, high rate of hidden unemployment, insufficient diversification of agricultural and non-agricultural income generating activities, low income level and low quality of life for rural population,

⁶⁸ Retrieved from;
<http://www.aegeanexporters.org/Asp/Content.Asp?MS=1&Content=1&MN01=13&MN02=4&MN03=0&MN04=0&MN05=0&ID=121> on 21.02.2006

⁶⁹ Turkish Statistical Institute, (TURKSTAT), 2004, Retrieved from;
http://www.turkstat.gov.tr/metaveri/46_m8.doc on 13.04.2005.

migration which includes rural to urban areas and interregional and, ageing of rural population.⁷⁰

Besides the development plans, there have also been various programmes aiming to contribute to rural development such as: Environmentally Based Agriculture Land Protection Programme; Agriculture Insurance Payments; Rural Development Grants; and Village based Rural Development Programme. Turkey has only at the end of January 2006 adopted a National Rural Development Strategy (NRDS) providing the first rural development strategy plan for the country. It will serve as a basis for the National Rural Development Plan and the IPARD Plan in which the targeted interventions and national, international and EU financial dimensions are to be involved.⁷¹

4.2 Organical Agricultural Information in Turkey

In Turkey, Ministry of Agricultural and Rural Affairs's (MARA) has a web address, containing different information on organic production and consuming. The MARA is the institution dealing with how organic agriculture could be developed through meeting the demands of the people. In that web address there is an organical agricultural link. This link on the internet gives various informations, statistics and Organic Farming Law. There are other web sites about organical agricultural sector on the Turkish web site addresses. One of these internet sites has information about agricultural sector and EU relations as;

“The main object is to create and form a well-organised, highly competitive and sustainable agriculture sector that deals with economic, social, environmental and international developments as a whole, in line with the efficient use of the resources. Pursuant to this main object, the agricultural strategy paper is prepared to facilitate the decision-making process of agricultural circles and to allow the sector to develop in line with the development targets and strategies and to form the baseline for the Frame Law of Agriculture to be enacted until the end of 2004,

⁷⁰ European Commission, Screening Report Chapter 11, Agriculture and Rural Development, 2006, p.11, Retrieved from; http://ec.europa.eu/enlargement/pdf/turkey/screening_reports/screening_report_11_tr_internet_en.pdf, on 28.02.2009.

⁷¹ Ibid. p. 12.

and for the secondary legislation in association for the period between 2006 and 2010. And by taking into consideration the harmonisation issues with the European Union’’.⁷²

Turkey started implementing certain laws and regulations about organic agriculture with the beginning of the 1990’s. The first national regulation was based on the EU regulation 2092/91.⁷³ The organic agricultural sector certainly is interrelated with other areas such as, trade, environment, health etc. That is why Turkey is at the same time working towards meeting and implementing the international standards which have been under effect in most European countries. Another event which affected the sector is the completion of the customs union between Turkey and the EU. This has also opened up a network between the both sides on certain products.

In USA one of the most important internet sites about organical agricultural information is Alternative Farming Systems Information Center (AFSIC). This Alternative Farming Systems Information Center (AFSIC) web site serves as a starting point for those interested in organic production in agriculture.⁷⁴ In Europe some of the important internet sites about organical agricultural sector are ‘www.organic-europe.net’, and ‘www.soel.de.’, ‘www.organicconsumers.org.’

4.3 Main Benefits of Organic Agricultural in Turkey

Organic farming provides important social, economic and environmental benefits while its share of agricultural production continues to increase. These benefits have deep impacts on health and well being of the people and the lands. Through the improved nutrition of organic food, humans will be healthier and health care costs will be reduced. The increases in soil fertility and elimination of toxic inputs will promote the

⁷² Tarımda Yenilenme Stratejisi, Tarım Reformu Uygulama Projesi, 2003, Retrieved from; <http://www.arip.org.tr/tys.htm>

⁷³ M.A.E van Leeuwen, M.P.J. van der Voort, W.Sukkel, S.Balci, “Organic Agriculture in Turkey: Trade Opportunities for organic fruit and vegetables”, *Applied Plant Research*, 2008, Retrieved from; <http://library.wur.nl/biola/bestanden/1873223.pdf>, on 15.04.2009

⁷⁴ Mary V. Gold, “Organic Production Organic Food: Information Access Tools?”, United States Department of Agriculture, June 2007 Retrieved from; <http://www.nal.usda.gov/afsic/ofp/#intro>

quality of environment, improving water quality, decreasing soil erosion and providing habitat for a diversity of beneficial plants, animals and wildlife.⁷⁵

Organic farming protects soil and water for future generations, and certainly it has to fund its own certification. Organic farming offers the ‘green’ alternative which is being damaged by consumers. The emerging foreign market standards will also benefit from the organic producers which will also bring a momentum to the global market.

The Swiss researchers did find some true benefits from organic farming, including greater water retention by the soil and a higher presence of beneficial insects.⁷⁶

“No-till farming matches several other advantages of organic agriculture as well. Both methods offer improved soil structure, more water retention, greatly reduced soil erosion, less pesticide and fertilizer runoff, and a higher presence of beneficial insects”.⁷⁷

4.3.1 To Protect the Water

In Turkey agriculture sector uses 70% of the water with water plan 60% or 70% amount of less water will be used. Organic agricultural products prices decrease with less water costs. Water administration plans may prevent even if water shortage problem will occur in the future. Minor using water decrease costs of agricultural products in Turkey. If we examine EU water gravitation we may see water’s importance is strategic. Turkey is half watery country. In Turkey there are 210 concrete barrages over 35 meters 600 barrages over 15 meters. Concrete made dams last 75 years in Turkey. With organical agricultural method agriculture sector will gain clean water because of not using chemistry products or medicine.

On the other hand wetlands are very important for environment and organic agriculture because bio-diversity in wetlands is vital for sustainable economic progress.

⁷⁵ Tim J. LaSalle & Paul Hepperly, “Regenerative Organic Farming: A Solution to Global Warming”, 2008, Rodale Institute, Retrieved from; http://www.rodaleinstitute.org/files/Rodale_Research_Paper-07_30_08.pdf, on 12.04.2009

⁷⁶ Ronald Bailey, “Organic farming could kill billions of people”, June 2002, Retrieved from; <http://www.reason.com/news/show/34820.html>

⁷⁷ Ibid.

Wetlands have values and functions that cannot be compared with other ecosystems. Besides the wildlife inventory that they host, especially waterfowl, they regulate the hydrological balance, stabilize the climate, and increase water quality through the retention of sediments and toxic materials. They have significant contribution on economics both in local and national levels by means of fishing, hunting, reed cutting and touristic activities.⁷⁸ Wetlands and organical agriculture have the same property for nature; it is to increase water quality.

Organic agriculture does not pollute ground water instead protects water quality which is so vital for organic agriculture. In Turkey to protect water and to encourage organic agriculture, a protocol signed between the Ministry of Agriculture and Rural and Ministry of Energy and Natural Sciences. Depending on this protocol 38 barrages, which were protection areas, were opened for organical agriculture. Pesticides and excess nutrients are common contaminants of surface-, ground- and rainwater.

Organic farmers do not use toxic pesticides and synthetic fertilizers. Instead they use crop rotations, cover crops, grass waterways and filter strips to prevent soil erosion, protecting water from sediments and excess nutrients.⁷⁹ Pesticides pollute water there is another example for this case. Water makes up to two-thirds of our body mass and covers three-fourths of the planet. Despite its importance, the Environmental Protection Agency (EPA) estimates pesticides (some cancer-causing) contaminate the ground water in 38 states, polluting the primary source of drinking water for more than half the country's population.⁸⁰

4.3.2. To Protect Soil Erosion

Turkey loses huge amount of land every year. This will increase if upper surface river basin precautions will take and if trees be sewn.

⁷⁸ The Ramsar Convention on Wetlands, 2003 – 2008 National Wetlands Strategy for Turkey, 2002, Retrieved from; http://www.ramsar.org/wurc/wurc_stratplan_turkey.htm

⁷⁹ Jim Riddle, “The Constellation of Organic Values”, *A longer version of this article was presented at the 2005 MOSES Conference in LaCrosse, Wisconsin*, Retrieved from; http://www.edenfoods.com/issues_important_values.html

⁸⁰ Retrieved from; <http://www.greenearthorganics.com/tenreasons.asp> , on 07.03.2009

On the other hand conventional agricultural damages earth, so erosions affect earth easily. It is definite that nature will be badly affected resulting with the crash of earth. Organical agriculture attempts in barrage protection sides are good examples for protection of earth erosion. Organic farming is anticipated to increase soil activity and remove the danger of erosion.

Soil is a complex mixture of water, minerals, gases, and plant and animal leftovers. Generally, new topsoil forms about as fast as existing topsoil erodes. However, certain human activities, such as grazing livestock and clearing of land for development, can upset this natural balance and accelerate erosion.

When land is cultivated for commercial agriculture, vegetation is typically removed, leaving topsoil exposed and more susceptible to erosion. Faced with serious threats to their livelihoods, many farmers have adopted agricultural practices intended to preserve topsoil. Aiming to conserve and enhance soil structure, reduce the use of synthetic energy inputs, and replace human-made additives such as pesticides and fertilizers, these practices combine aspects of organic farming and sustainable agriculture.⁸¹

The difference between conventional and organical agriculture in affecting soil erosion may be defined as: Soil is the foundation of the food chain in organic farming. But in conventional farming the soil is used more as a medium for holding plants in a vertical position so they can be chemically fertilized.⁸² However there are also other reasons of soil erosion which have been explained in the table shown below.

⁸¹ Organic Farming: Conserving Top Soil, Retrieved from; <http://www.teachersdomain.org/resources/ess05/sci/ess/earthsys/organic/index.html> , on 13.02.2008

⁸² Retrieved from; <http://www.greenearthorganics.com/tenreasons.asp>

Table 1.20 Showing the Effects of Soil Erosion⁸³

Loss of soil fertility	Fluctuation of water in rivers and other water reservoirs
Low productivity	Flooding
Famine	Transformation of vegetation due to change in soil depth
Malnutrition	Spread of human and crop diseases
Loss of income/poverty	Siltation of springs, rivers, wells and others
Family conflicts	Others...

However, soil erosion can be combated by number of measures which may include; changing the gradient and length of the slope, protection of the soil from direct sunlight and rainfall as well as changing the soil properties to allow for more water infiltration. The solutions to soil erosion could be found to be centered on soil conservation through

⁸³ Damulira Robert, “Sustainable Organic Agriculture As A Technique For Rural Community in Development”, 2005, Retrieved from; <http://www.villagevolunteers.org/PDFs/Travel%20Documents/Projects%20Library/SustainableOrganic.pdf?PHPSESSID=1f62a10233c774c8af29b49957df0e8f> on 23.03.2009

a number of agro-forestry technologies. The soil conservation here means; using the land as it should be used, that is using both soil enrichment methods as well as soil protection methods (terracing, contour ploughing, rotational woodlots, and hedge rows, among others). Better results are achieved when the two methods are integrated.⁸⁴

There is more technical definition how organic agriculture controls erosion. Organic soil management improves soil structure by increasing soil activity and thus, reduces erosion risk. Organic matter has a positive effect on the development and stability of soil structure. Silty and loamy soils profit from organic matter by an enhanced aggregate structure. Organic matter is adsorbed to the charged surfaces of clay minerals. The negative charge decreases with increasing particle size. Silt is very susceptible to erosion since it is not charged, but organic-matter layers on the silt surface also favour aggregates with silt.⁸⁵

4.3.3 Revenue for Producers High Quality Products for Consumers

Organic production affects agricultural productivity and revenue. Costs will decrease because of synthetic dung and agriculture medicine won't be used in agriculture. Producers use their tractors less in organic agriculture so they use less fuel this is one of the cost advantages. On the other hand organic agriculture products have an advantage of more shelves during times. It is an advantage and important economical gain for sale points consequently producers. One example in the internet says: For example, farmers selling organic corn were paid on average 35% more than their conventional counterparts in 1995, 44% more in 1996, and 73% more in 1997.⁸⁶

To give a more concrete example for organic producer's high revenues one study says; Organic farmers need sustainable prices to stay in business. Fortunately, consumers value organic food enough to pay farmers fair prices for their products. Organic

⁸⁴ Ibid.

⁸⁵ "Organic Agriculture: The Challenge of Sustaining Food Production While Enhancing Biodiversity", *United Nations Thematic Group Sub-Group Meeting Wildlife, Biodiversity and Organic Agriculture* Ankara Turkey 15-16 April 2003, p. 7, Retrieved from; <http://www.fao.org/DOCREP/005/AD090E/AD090E00.HTM>

⁸⁶ Making Money Matters, Too- Profits from Organic Cropping Systems Can Equal or Exceed Profits From Conventional Farming, Retrieved from; <http://www.heall.com/healingnews/june/organics.html>

agriculture is rare in the US in that it functions largely in the free market. In a 10-year study, the University of Minnesota found that organic farming resulted in equivalent yields and equivalent profits when crops were sold with no premium, and higher profits when crops were sold at organic prices.⁸⁷

On the other hand Consumers will consume original and peculiar taste of products. Organical agriculture products have more nourishment and mineral values. To analyze high quality one of the searches explains as; organic farming is pursued with the declared objectives of contributing to food quality and safety. This is of concern to FAO in view of its mandated goal to "ensure all people at all times with nutritionally adequate and safe food". FAO has an important role in establishing international food quality and safety standards thereby protecting consumer health and facilitating international trade.⁸⁸

Marketing of Turkish organic agriculture production should be considered as a whole, focusing solely on marketing is not enough for competing globally. For this reason, the process of production should be regarded as a value chain, and each ring of the chain should be evaluated in detail to overcome difficulties associated with market creation. The production process of organic farming can be listed by a number of fundamental and delicate steps such as selection of seeds (must be organic), land preparation, cultivation, soil management, crop rotation, mulching, using beneficial insects and other organisms, pesticide, harvesting, and storing in the approved manner. For Turkey, the worldwide application of unified or harmonized production standards, for organically produced foodstuffs is enormously important for a greater development of organically grown land and, of markets of organic products. Although, most of the Turkish farmers are aware of the significance and techniques of organic agriculture, the farmer and labor force should be trained and qualified by giving intensive programmes throughout the country.

⁸⁷ Riddle, op.cit.

⁸⁸ Hartwig de Haen, "Producing And Marketing Quality Organic Products: Opportunities and Challenges", 6th IFOAM Trade Conference: Quality and Communication for the Organic Market, Florence, 23 Oct. 1999, Retrieved from; <http://www.fao.org/organicag/doc/IFOAMf-e.htm>

4.4 Sustainable Organic Farming

Organic agriculture offers the countries an extensive range of economic, environmental, social and cultural benefits. Within the realm of economy, global markets for certified organic products have been rising rapidly over the past two decades. In 2006, global certified organic sales were estimated to have reached nearly 30 billion euros, a 20 % increase from 2005, and are expected to increase to 52 billion euros by 2012.⁸⁹ While most sales are in North America and Europe, the production is global with developing countries producing and exporting organic shares. Due to growing markets and price rates, numerous studies in Africa, Asia and Latin America have shown that organic farmers earn higher incomes when compared to their conventional counterparts.

Moreover, organic products more easily meet the ever more strict requirements on maximum residual levels of synthetic agro-chemicals, as organic standards ban their use⁹⁰. On the environmental side, organic agriculture causes less pollution, less soil erosion, builds soil fertility and enhances biodiversity on and around the farm. It is much more resilient to climatic stress, including drought and floods. This can be therefore a key mechanism to cope with the effects that climate change will increasingly bring. In addition, it is much more energy efficient than conventional agriculture and holds carbon in the soil.

All this clearly shows that organic agriculture is a hopeful trade and a sustainable development opportunity to the human and, a powerful tool for achieving the Millennium Development Goals, particularly those related to poverty alleviation and the environment.

Besides the competition and cooperation among states, what makes them think about the future is actually how to develop within a sustainable manner. Using the sources with unconsciousness behaviour sooner or later will cause serious damage. This

⁸⁹ UNEP – UNTAD Capacity Building Task Force on Trade, Environment and Development, 2007, *International Symposium on Environmental Requirements and Market Access*, Retrieved from; [http://www.unep-unctad.org/CBTF/events/geneva5/WordBackground note organic agriculture 01102007.pdf](http://www.unep-unctad.org/CBTF/events/geneva5/WordBackground%20note%20organic%20agriculture%2001102007.pdf)

⁹⁰ Ibid.

has lead the states developing their different sectors under sustainable development programmes in which one of them appears to be their farming industry.

“Sustainable implies the satisfying of the changing human needs in time from generation to generation and within a generation. It means continuity in agricultural production that is equally distributed from generation to generation and within a generation. It is by definition correlated to sustainable development, which emphasizes development to meet the intermittent needs of present and future generations”.⁹¹

As mentioned above, sustainability means protecting certain savings in order to pass them on to next generations. That is why agriculture and the products earned from it need not to be wasted. “Sustainable Organic Agriculture therefore refers to that form of improved growing of crops and rearing of animals from generation to generation and within a generation; using natural materials from the farm and less of inorganic agro-chemicals”.⁹²

The EU has been a forerunner in sustainable development. The main principle behind this is, ‘quality of life’ which means, economic growth, social welfare and environmental protection at the same time. The approach of the EU can be explained as a neo- humanistic economic sustainable system, which is not all about the flow of money, but to show respect for the nature and future, preservation of the natural environment, ecological food safety, and high quality of foodstuffs.

Sustainable organic agriculture came to be a reality by farmers and consumers of farm products of the detriments associated with the use of inorganic agro-chemicals. Sustainable organic agriculture includes the following measures that ensure that

⁹¹ Damulira Robert, “Sustainable Organic Agriculture As A Technique For Rural Community in Development”, 2005, Retrieved from; <http://www.villagevolunteers.org/PDFs/Travel%20Documents/Projects%20Library/SustainableOrganic.pdf?PHPSESSID=1f62a10233c774c8af29b49957df0e8f> on 23.03.2009

⁹² Ibid.

production on the farm is sustainable both in the intragenerational and intergenerational dimension. These are; Soil and water conservation, organic manuring, vegetable growing and utilization, energy conservation and energy saving stoves, natural crop protection methods etc.⁹³

Consumers, producers and investors have a responsibility for making choices, which contribute to more, rather than less environmental sustainable technologies, not least actors in the financial markets have to take a more long term perspective on investment and sustainability. However, the main responsibility rests upon governments and public policy makers to create the framework conditions needed for a change of technology to more sustainable patterns of production and consumption.⁹⁴

Besides the improvements of science and technology what has to be done, is that making use of the technology without giving harm to the environment. For instance Lindqvist (2002) underlines the importance of misusing technology and science as;

Technology is a double-edged sword. It is both a cause of many environmental problems and a key to solving them. It is a matter of fact that the technologies of the past, still dominating in transport, energy, industry and agriculture, are undermining our basic life supporting systems – clean water, fresh air and fertile soil.⁹⁵

The aforementioned explanation of technology has to be remarked for achieving better solutions in the farming sector. That is why; there is a need of creating awareness both for the producers and consumers. Winch (2005) puts forward the importance of improving the Community Supported Agriculture (CSA) approach. This approach has the aim of bringing producers and consumers close together.

⁹³ Ibid.

⁹⁴ Oliver Lindqvist, “Technology and Policy for Sustainable Development”, 2002, Centre for Environment and Sustainability, p.11, Retrieved from; <http://www.miljo.chalmers.se/epsd/Techn%20SD.pdf> on 11.03.2009

⁹⁵ Ibid. p.12.

Another objective the CSA's are trying to fulfill is avoiding the externalization of environmental damage. The CSA's have played an important role in fostering community and making people more empowered about their food decisions, through encouraging them to be more proactive in protecting the quality of their food, the people who grow them, and the land they are grown.⁹⁶

That is to say, to put it simply, at present it seems that both organic farming and sustainable development lie at the heart of the discussions for the future of the world. No matter which country or region is the subject, these areas certainly require international cooperation and coordination of policies. What is the most important in a point of my view is that, organic farming is not an issue, which can be tackled alone. It has close relations with other sectors, such as; environment, sustainable development, economy etc, which all must be dealt within an integrated approach.

4.5 A Comparison of Organic Agriculture Sectors between Turkey and the EU

Turkey is a big country due to its geographical land area and population. One of the most important economic sectors in Turkey remains as the agriculture sector. Agriculture in Turkey has played probably the most important role in both economic and social development. The agricultural sector covers 11% of the national income and 33% of the employment in Turkey. Besides, agriculture directly supplies food, clothing, sheltering etc. which are the basic needs of human race. Due to its conditions and potentials organic production in Turkey remains eligible.

Between the years 2000 – 2007 the amount of organic production has increased more than 100%. According to the strategy of the Ministry of Agriculture and Rural Affairs between 2006 – 2020 this amount will increase rapidly. If a comparison is to be made between organic agriculture in Europe and Turkey there appear important differences. For instance, if analyzed the history of ecological agriculture in Germany started at the beginning of the 20th century, with certain farmers and their own initiatives producing

⁹⁶ Rachel Winch, "Community Supported Agriculture: A Model for Combating Distancing", 2005, Sustainable Development Research Paper, p.12, Retrieved from; <http://www.williams.edu/ces/mattcole/resources/onlinepaperpdfs/hardie/winch.pdf> on 29.04.2009

low amounts of bio products to consumers. Between 1989 – 90 in the EC it is known that, for the agriculture to spread over a large area, it was financed. Under different circumstances, in transitional periods (5 years) in Germany 300-510 DM/HA was financed per year.⁹⁷ Besides transition to organic agriculture, maintaining production was financed as well. Between years 1970 – 88 approximately 115 enterprise passed on to ecological agriculture, and due to this financial support in 1990, 2500 enterprise has moved on to organic agriculture. In Germany, passing on to organic agriculture has two important facts;

- A. For protecting and saving natural resources organic agriculture was seen an important alternative.
- B. Since 1989 organic agriculture has been financed well enough by the EC.⁹⁸

On the contrary, ecological agriculture in Turkey appeared as a reaction of the importers and exporters by the demands from outside. From its very beginning (app. 25 years early) organic agriculture has not developed a well running domestic market in Turkey. Dissimilar from Germany, organic agriculture in Turkey has not been financed. In short, the reason of developing organic agriculture has neither been established because of environmental conscious by the Turkish farmers nor from a financial supporting policy. It developed by the outside demands and its necessities.

In Turkey, organic agriculture products started with contractual producing, which later flourished the same way as conventional production built on demand creation and through independent projects which were supported upon. Starting from 1985 with different kinds and amounts of external market demands shaped organic production in Turkey, which created a new dimension starting with the beginning of 2000. Beginning organic production with fig, currant, apricot later increased to different products such as herbal products, processed vegetables, bestial products etc. In the first years (1984-85) number of organic products remained around 8 to 10, which now counts to over 200 different organic products. The increase of the variety of these products has come along with an increase of production as well.

⁹⁷ Manon Haccius & Immo Lünzer, “Organic Agriculture in Germany”, 2000, p. 112, Retrieved from; http://www.organic-europe.net/country_reports/pdf/2000/germany.pdf on 11.09.2009

⁹⁸ Ibid., p.113.

At the beginning of 2000, the amount of production in Turkey was 170 thousand tons, which nowadays has increased to 420 thousand tons. The Member States of the EU are the most important export countries of Turkey. The members of the EU, like Germany, the Netherlands, UK, as well as the Nordic states (Finland, Norway and Denmark) and, countries like US, Canada, Australia, and Japan have the foremost exporting potential. In Turkey, like in all countries producing organic products, the amount of organic production though on rise, still is not closer to the consumption and demand rates.

4.6 The Common Agricultural Policy, Agenda 2000 and World Trade

Organization

When the CAP was introduced with the Treaty of Rome and with certain arrangements throughout the 1960's, the main concerns of the Member States of the Union (then the EEC) was more about food shortages, security of supply and harmonization of regulations among themselves. Throughout the development of the CAP especially through the Manshold Plan (1962), the Macshary Reforms (1992), required more reform within an enlarged EU, that is why, starting with the Agenda 2000, now the Member States of the Union alongside with the EU institutions are much more interested with the emerging concerns such as world competitiveness, environmental degradation, and the level of subsidies along with the enlargement of the Union etc.

The Agenda 2000 initiated in 1999 puts forward wide range of innovations introduced for the CAP. Foremost of these, is the division of the CAP in to two pillars as *production support* and *rural development*. The Agenda 2000 was an updating of the CAP for meeting the requirements of the millennium as well as for the upcoming enlargements (in 2004 and 2007) which was labeled as 'a manifesto for change'. The Agenda 2000 introduced cuts in institutional prices for instance in beef, cereals and milk/dairy products separately. According to this new structure in beef sector, prices are to be cut by 20% starting from 2000, as well as for arable crop this level is to be 15%.

The milk and dairy products faced a cut of 15% with an exception of starting from 2005.⁹⁹

According to the 'lagging behind' approach regions in the need of special help have been identified according to their level of per capita gross domestic product under EU average (below 75%). A number of regions¹⁰⁰ in nine Member States have been laid down according to poor conditions.

Agenda 2000 introduced budgetary reforms especially Member States contributions to the EU's expenditures as follows;

- reduced the size of Member States Value Added Tax payments to the budget
- increased the amount of border tariffs and levies Member States can hold back from the Union to cover collection costs and fighting fraud
- maintained, with some minor changes to avoid windfall benefits, the special compensation paid to the UK since 1984...]¹⁰¹

Besides the aforementioned developments, the EU is also a party in the WTO, in which negotiates these concerns within a wider environment with other parties. There was an external pressure arising from the WTO in which can be acknowledged as another reason of the Agenda 2000. The WTO agreeing on the 'de minimis' provisions under the Uruguay Round Agreement, made it clear that countries must provide minimal support to individual products and the agricultural sector as a whole.

As long as support under each of these provisions is less than 5% (10% for developing countries) of the value of production for that particular commodity (for product-specific *de minimis*) or the sector as a whole (for non-product specific *de minimis*), then none of that support counts against a country's Total AMS. If, however, support rises above 5% (10%), then all of that support counts towards the

⁹⁹ European Commission, Directorate – General for Agriculture, "EU Agriculture and the WTO", September 2001, Retrieved from; <http://ec.europa.eu/agriculture/external/wto/newround/full.pdf>, 02.09.2009

¹⁰⁰ Agenda 2000 acknowledges regions such as; the French overseas departments, the Azores, Madeira, and the Canary Islands requiring special help including less populated regions of Finland and Sweden. Europe's Agenda 2000, "Strengthening and Widening the EU", Priority Publications Programme 1999, X/D/5, Final Revision, p.10, Retrieved from http://ec.europa.eu/agenda2000/public_en.pdf, 05.09.2009

¹⁰¹ Ibid., p.14

Total AMS. The Total AMS plus the *de minimis* allowances can be interpreted as the total level of trade distorting support each country is permitted under the WTO agreement.¹⁰²

Certainly the Uruguay Round was the first phase of introducing developments in the agricultural sector. These were followed by the Doha Ministerial Declaration in 2001 which outlined the “substantial reductions in trade-distorting domestic support”¹⁰³, and the agreement on the 2004 Framework Agreement underlying the need of “substantial reduction in the overall level of trade-distorting support in developed countries, It also specifies that higher levels of permitted trade-distorting support will be subject to deeper cuts”.¹⁰⁴ These objectives were put on the table both by the EU and US in the Hong Kong Ministerial Conference (2005) in order to reach the levels set out in the Framework Agreement.

The EU starting with the establishment of its CAP has always been accused of being closed to free market conditions and granting high rates of subsidies to the farming industries in the Member States. That is why; the EU is facing certain responses from 3rd parties¹⁰⁵ towards reshaping its CAP more closely to the international environment. The main accusation towards the CAP argued by the countries exporting agricultural products, are firstly the CAP decreasing their amounts of export, and secondly the fall of demands in agricultural products giving birth to price decreases around the world.¹⁰⁶ With the establishment of the Agenda 2000, it has more or less satisfied the concerns mentioned above. However, the EU is still maintaining reforms and developments in the

¹⁰² Jean Pierre Butault & Jean Christophe Bureau, “WTO Constraints and the CAP: Domestic Support in EU 25 Agriculture, *IIIS Discussion Paper*, No.17, 2006, p.2, Retrieved from; <http://www.tcd.ie/iiis/documents/discussion/pdfs/iiisd171.pdf>, 08..09.2009

¹⁰³ World Trade Organization, Ministerial Conference, 4th Session, WT/MIN(01)/DEC/1, 2001, p.3, Retrieved from; http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.pdf, 10.09.2009

¹⁰⁴ Jean Pierre Butault & Jean Christophe Bureau Op.Cit., , p.3

¹⁰⁵ The CAP of the EU is accused mostly by the US and the Cairns Group which is a coalition of 19 agricultural exporting countries with a commitment to reforming agricultural trade. *See* Cemil Ertuğrul, “Gündem 2000 Çerçevesinde AB Ortak Tarım Politikasının Yeniden Yapılandırılması ve Türkiye”, Devlet Planlama Teşkilatı , *Planlama Dergisi*, 2002, Ankara, p. 294, Retrieved from; <http://ekutup.dpt.gov.tr/planlama/42nciyil/ertugruc.pdf>, 06.09.2009

¹⁰⁶ *Ibid.*, p.295

CAP. In 2003 the Luxembourg Agreement has made further reductions in support prices, and introducing a single farm payment (SFP) coming into force in 2005.¹⁰⁷

The recent data (2001-2002) on total EU support to agriculture amounted to some €83.7 billion euros, including €23.7 billion in Blue Box expenditures and €20.7 billion in Green Box expenditures. The Table below shows the comparison of the Blue Box amounts between the years 2001 and 2003. The changes implemented in the CAP since 2001 leads to a change in the domestic support being a requirement under the WTO provisions. In 2001, Amber Box expenditures represented approximately 47% (EU-15) domestic support and Green Box payments at a level of 25%. After the implementation of the 2003, 2004 and 2006 sugar reforms, including the provisions on ‘recoupling’ at the national level and modulation, decoupled payments, normally eligible for the Green Box, amounts to €28.6 billion. Other Green Box expenditures represent 20% of the whole support.¹⁰⁸

Table 1.21: Blue Box payments, EU-15, and changes brought by the recent reforms¹⁰⁹

	Blue Box expenditures 2001, Billion €	Blue Box expenditures after 2003 Reform, Billion €
Arable Crops	18.1	1.8
Beef	5.0	1.7
Sheep	0.6	0.1
Others		1.2
Total	23.7	4.8

The EU most probably proves its good will in the reduction in support provided by the blue and green boxes, which is acknowledged as the main rule of moving from market

¹⁰⁷ Julian Binfield, Trevor Donnelhan, Kevin Hanrahan, Chad Hart, and Patrick Weithaft, ‘‘CAP Reform and the WTO: Potential Impacts on EU Agriculture’’, American Agricultural Economics Association Annual Meeting, Colorado, 2004, p.5, Retrieved from; http://www.fapri.missouri.edu/outreach/publications/2004/FAPRI_UMC_Report_08_04.pdf, 07.09.2009

¹⁰⁸ Jean Pierre Butault & Jean Christophe Bureau Op.Cit., p.7

¹⁰⁹ Ibid., p.8

price support to direct payments.¹¹⁰ Different reforms of the CAP starting with the Agenda 2000, the 2003 reform, 2004-2005 reform for olive oil, tobacco, cotton, hops, as well as the 2006 reform of sugar sector have shaped and reduced the level of Amber Box support. These reforms listed above have also contributed to the development of organic farming in the Community. The Commission has identified an Action Plan (2004) for organic farming's contribution to the CAP. For instance the reforms mentioned above starting with the Agenda 2000 was to promote production that supports environmentally friendly, quality products, which do show parallel objectives. The Commission has identified 21 key actions to be taken for improving and reinforcing the Community's organic farming standards.¹¹¹

¹¹⁰ European Commission, Directorate – General for Agriculture, “EU Agriculture and the WTO”, September 2001, Retrieved from; <http://ec.europa.eu/agriculture/external/wto/newround/full.pdf>, 02.09.2009

¹¹¹ Commission of the European Communities, “European Action Plan for Organic Food and Farming, , COM (2004) 415 final, Brussels, pp.2-3, Retrieved from; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0415:FIN:EN:PDF>, 10.09.2009

CONCLUSION

Our study started to read books about how to write a thesis considering advices. After these studies our new study begun to determine which subject thesis will be analyzed. At the end of these studies I decided to survey organic agricultural in Turkey. When we started to survey organic agriculture sector we used two ways to collect data. One is reading books, articles, newspapers and watching programmes about organic agriculture especially in Turkey. And, secondly choosing the way of collecting data, about the negotiations with various farming sector participants in different cities in Turkey, was useful. These participants composed of farmers, organic agricultural products sale shops, exporters of organical agricultural products, farming engineers, agriculturalists, factory owners which processed agricultural products. This thesis subject shaped, changed, developed, and enlarged from the very beginning till the end of the study.

Firstly this study aims to address the importance of organic agriculture for the Turkish economy and for the EU. Secondly, it aims to address organic agriculture's external utilities.

In other words one of the research questions of this study is what prospective benefits Turkey would get, if in Turkey agricultural production sides places more importances upon organic agricultural policies? And another research question is how will these more importances upon organic agricultural policies affect the trade between Turkish and EU agricultural products?

This Study also analyzes certain statistics of Turkish organic agricultural sector. How will this importance upon organic agricultural policies affect employment percentages? Will more workers be employed in the farming sector? These are other research questions. Marketing advantages and disadvantages are explained to understand these underlined subjects better.

There are two important points in organical agricultural prices, the first one is their prices are higher than conventional agricultural prices. In this respect organical agricultural product revenues are higher than conventional agricultural revenues from the point of farmer's. This enables organic agricultural products and countries of these producers, to benefit from global trade relations in terms of prices.

Considering agricultural trade with EU and the potential of Turkish farming production this seems important. Organic agricultural products market will supply and demand more because of giving more importances upon organical agricultural policies, when organic agricultural market demands increase, supplying more organic products to market will progress. This leads an increase in the number of investments. Investments develop organic agricultural sector.

Continuing with the question upon, what has to be done is that Turkey must in the first place open up a nation-wide campaign through the media to improve the poor recognition of organic products by the Turkish consumers. However, it should not be forgotten to clearly emphasize the differences between the terms 'organic' and 'natural' in such promotions and, schools should be involved in all promotions. 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 and food safety, all promotions must directly target these groups and the increase in the sales of organic products must be realized by the emphasis of these motives.

Huge developed organic agricultural sector in Turkey is able to compete with other major organic agriculture world markets and become more stabilized. In this regard Turkish organic market will become more competitive. Actually one of the criteria to be accepted to the EU is to have a competitive economic structure and to be able to resist the competition forces and market forces as it was accepted among the Copenhagen criteria.¹¹²

¹¹² Ebru Oğurlu, "The Effects of the Customs Union on the Trade Relations Of Turkey With Third Countries", Marmara University European Community Institute, M.A (Unpublished) Thesis, Istanbul 2001,p. 68

On the other hand high prices are disadvantages of these products in marketing, because of the substitute's effects of conventional agricultural products. Consumers prefer low priced agricultural products despite to high priced agricultural products. The visible difference between organic agricultural products and conventional agricultural products is logos.

Considering the fact that products have to have a brand to ease their marketing success. Organical agricultural products have organic product logos on them. 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.¹¹³ Friendly environment policy and high quality are other advantages of these products in marketing.

The second important point of organic agricultural prices is about their costs. High production number of organic agricultural products will decrease the cost per one unit of production. This increase in the production of numbers because of more importances upon organic agricultural policies from organic agricultural sides enables decrease in costs. Management costs, transportation costs, or sales cost will be dividend by higher numbers of production.

Concluding for our case, design issues of the organical agricultural information center has also been discussed within the suggestion part of this thesis.

¹¹³ Namık Kirazlar. "Ekolojik Tarım Mevzuatı", *Türkiye ikinci Ekolojik Tarım Sempozyumu*. (2001) July 5,2004.

SUGGESTION

Information share is determinant which seriously affects the production of the organic products. Considering this, in Turkey organic agriculture information center will be very helpful to the organic products market in Turkey. For example in Turkey, if organic agricultural information center will be established, this center will give very important services to the organical agricultural sector, which will help in changing the perception towards using organic products.

One of the important priorities of the Turkish organic farmers, who will begin production in organic agriculture, is receiving information about organic agriculture. These farmers have different conditions. Specialists in organical agriculture may give consultancy services to those farmers in organic agricultural sector. Every organical agriculture producer has its own properties like area surface or weather. In organical agricultural center, specialists may help producers with which organical agriculture products they can maximize for their feasibility technically. It is well known that more feasible and effective producing would end up with earning more revenue.

On the other hand development of the organic products sales channels is the necessity of organic product market. It is fact that to compete with conventional agricultural products, organic agricultural products have to increase their sales channels. Consumers have to find these products easily.

In the meantime, the purchasing habits of Turkish consumers should also be taken into consideration when the further development of Turkish organic agriculture is planned. Since most of the ordinary Turkish consumers prefer to purchase fresh vegetables and fruit from the weekly markets, organic production for the domestic market should consist of these products and the weekly markets can be evaluated as a successful way of sale in increasing the organic products.

Organical agricultural information center may help to organize fairs. In these fairs the establishment and development relations with the international organic agricultural producers with domestic producers, may easily happen. Organic agricultural

information center may encourage more farmers to pass along with organic farming and this increase will show supply progress sale channels.

There are a lot of farmers who would like to transform their conventional system to the organic farming, but they are afraid to risking their small capital due to the absence of government support. The Ministry of Agriculture carries out a project to encourage the organic production. Besides, there are organic agriculture courses organized by the Ministry of Agriculture and ETO.

There is a vital need to develop an advisory system for the organic agriculture. The coordination between the universities, research institutions operated by the ministry, and private companies is important. A research-working board for the organic agriculture must be established by the Ministry of Agriculture, which will work closely with the universities to set up priorities in research for raising funds. The establishment of a network or a federation of organic farmers, traders, consumers etc. will be of great help for the development of organic agriculture.

Turkey has to adopt sustainable production methods and high-quality value added organic products, as well as the need to improve competitiveness and extend its limits when participating in global markets. Exhibition farms would have to be established in different regions of Turkey to exemplify various organic practices. An initial demonstration farm can make use for organic vegetable production, which can be established by the department of agriculture, in various Turkish universities. This will provide as the basis for the dissemination of right information and for training in all aspects of organic production.

Besides the necessities listed above, Turkey if manages to fulfill the requirements of organic agriculture, will ease its relations with the EU. As these requirements are a must for Turkey which is in the middle of the negotiations with the EU. The chapter of Agriculture will be one of the difficult ones to negotiate and, implementing certain things in organic farming will be of great help for Turkey in the agriculture sector, which will speed up its accession. Agriculture is a sector improving

with the developments in science and technology and, that requires a country to keep up with the innovations introduced to this sector.

BIBLIOGRAPHY

Barkley, Andrew. “Organic Food Growth: Producer Profits and Corporate Farming”,
Presentation at the 2002 Risk and Profit Conference, March 1, 2005. Retrieved
from: http://www.wagmanager.info/events/risk_profit/2002/Barkley_.pdf on
21.03.2009

Baraskina, Irena. “Impact of Institutionalization on the Development of Organic
Agriculture”, 2009, Latvia University of Agriculture, Retrieved from;
[http://www.mace-events.org/greenweek2009/5795-
MACE/version/default/part/AttachmentData/data/Baraskina-
Institutionalization%20on%20the%20Development%20of%20Organic%20Agriculture.pdf](http://www.mace-events.org/greenweek2009/5795-MACE/version/default/part/AttachmentData/data/Baraskina-Institutionalization%20on%20the%20Development%20of%20Organic%20Agriculture.pdf) , on 12.05.2009

Bailey, Ronald. “Organic farming could kill billions of people”, June 2002, Retrieved
from; <http://www.reason.com/news/show/34820.html>

Binfield, Julian Trevor Donnelhan, Kevin Hanrahan, Chad Hart, and Patrick Weithaft,
“CAP Reform and the WTO: Potential Impacts on EU Agriculture”, American
Agricultural Economics Association Annual Meeting, Colorado, 2004, p.5,
Retrieved from;
[http://www.fapri.missouri.edu/outreach/publications/2004/FAPRI_UMC_Report
_08_04.pdf](http://www.fapri.missouri.edu/outreach/publications/2004/FAPRI_UMC_Report_08_04.pdf), 07.09.2009

Butault Jean Pierre & Jean Christophe Bureau, “WTO Constraints and the CAP:
Domestic Support in EU 25 Agriculture, *IIIS Discussion Paper*, No.17, 2006,
p.2, Retrieved from;
<http://www.tcd.ie/iiis/documents/discussion/pdfs/iiisd171.pdf> , 08.09.2009

Commission of the European Communities, Communication from the Commission to
the Council and the Parliament- European Action Plan for Organic Food and
Farming, COM (2004) 415 Final, Retrieved from; <http://eur->

lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0415:FIN:EN:PDF on 15.03.2005

Cultivating a Strong Organic Industry since 1985, *Organic Trade Association*,
Retrieved from; http://www.ota.com/organic/mt/export_3_3.html?printable=1

Darnhofer, Ika. & Walter Schneeberger & Bernhard Freyer “Converting or Not
Converting To Organic Farming in Austria: Farmer Types and Their Rationale”,
Agriculture and Human Values, 22, 39-52. April 22, 2005.

De Haen, Hartwig. “Producing And Marketing Quality Organic Products:
Opportunities and Challenges”, 6th IFOAM Trade Conference: Quality and
Communication for the Organic Market, Florence, 23 Oct. 1999. Retrieved
from; <http://www.fao.org/organicag/doc/IFOAMf-e.htm>

Demiryürek, Kürşat. “Dünya ve Türkiye’de Organik Tarım”, Harran Üniversitesi,
Ziraat Fakültesi Dergisi, 2004, 8(3/4): 63 – 71.

Dinler, Zeynel. *Tarım Ekonomisi* (Beşinci Baskı), Ekin Kitabevi Yayınları, Bursa, 1996.

EL-AGRAA, ALİ M. *The European Union History, Institutions, Economics and
Policies*, Londres Prentice Hall, 1998, p.135

Erkut, Yasemin. “Turkey Organic Products, Organic Production”, GAIN Report,
Global Agriculture Information Network, 2006, No. TU6020, p.6, Retrieved
from; <http://www.fas.usda.gov/gainfiles/200605/146197826.pdf> , on 11.02.2009

Ertuğrul, Cemil “Gündem 2000 Çerçevesinde AB Ortak Tarım Politikasının Yeniden
Yapılandırılması ve Türkiye”, Devlet Planlama Teşkilatı, *Planlama Dergisi*,
2002, Ankara, p. 294, Retrieved from;
<http://ekutup.dpt.gov.tr/planlama/42nciyil/ertugruc.pdf>, 06.09.2009

European Commission, Directorate – General for Agriculture, ‘‘EU Agriculture and the WTO’’, September 2001, Retrieved from; <http://ec.europa.eu/agriculture/external/wto/newround/full.pdf>, 02.09.2009

European Commission, Agriculture and Rural Development, Organic Farming, Retrieved from; http://ec.europa.eu/agriculture/qual/organic/def/index_en.htm on 22.05.2005

European Commission, Agricultural and Rural Development, State Aid, Retrieved from; http://ec.europa.eu/agriculture/stateaid/index_en.htm on 16.07.2006

European Commission, Screening Report Chapter 11, Agriculture and Rural Development, 2006, Retrieved from; http://ec.europa.eu/enlargement/pdf/turkey/screening_reports/screening_report_11_tr_internet_en.pdf, on 28.02.2009.

European Council (EC) No 834/2007 of 28 June 2007 ‘ on organic production and labeling of organic products and repealing regulation (EEC) No 2092/91, Official Journal of the EU, L 189/1, Retrieved from; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF> on 20 July 2008.

Green Revolution: Curse or Blessing?, (2002) *International Food Policy Research Institute, (IFPRI)*, Retrieved from: <http://www.ifpri.org/pubs/ib/ib11.pdf>

Gubbuk, Hamide. Ersin Polat, Mustafa Pekmezci, ‘‘Organic Fruit Production in Turkey’’, *Journal of Fruit and Ornamental Plant Research*, Vol.12, Special Edition, 2004, p.27, Retrieved from; <http://insad.pl/wydaw/wydaw2004spec/full2004-2spec.pdf> on 06.01.2009

Haccius, Manon & Immo Lünzer, “Organic Agriculture in Germany”, 2000, p. 112,
Retrieved from; http://www.organic-europe.net/country_reports/pdf/2000/germany.pdf on 11.09.2009 History of Organic Farming, Retrieved from; <http://onechange.com/blog/2006/07/history-of-organic-farming/>

İnan, İ Hakkı. *Türkiye’de tarımsal kooperatifçilik ve AB Modeli*, İstanbul Ticaret Odası Yayın No: 2004-40, İstanbul 2004.

İnci, Gencay Sevgi (2002). Ekolojik Tarım, Türkiye ve Dünyadaki Durumu, TUBITAK Vizyon 2023: Bilim ve Teknoloji Stratejileri-Teknoloji Öngörü Projesi Çevre ve Sürdürülebilir Kalkınma Paneli, Su Yönetimi ve Sürdürülebilir Kalkınma Ön Raporu, Retrieved from; <http://vizyon2023.tubitak.gov.tr/teknolojiongorusu/paneller/cevrevesurdurulebilir-kalkinma/raporlar/sonEK-2.pdf>

Kirazlar, Namık. “Ekolojik Tarım Mevzuatı”, Türkiye ikinci Ekolojik Tarım Sempozyumu. (2001) Temmuz 5,2004.

Kurz, Peter O. “Germany: Organic, Voluntary Report”, *Foreign Agricultural Service*, GAIN Report No: GM0971, 1999, Retrieved from; <http://www.fas.usda.gov/gainfiles/199912/25546541.pdf>

Lampkin, Nicolas. “Certified and policy-supported organic and in-conversion land area in Europe”, Institute of Rural Studies, University of Wales, Aberystwyth, Foster and Lampkin, 2000, Retrieved from; <http://www.organic.aber.ac.uk/statistics/euroarea03.htm>

Leeuwen, M.A.E van, M.P.J. van der Voort, W.Sukkel, S.Balci, “Organic Agriculture

in Turkey: Trade Opportunities for organic fruit and vegetables'', *Applied Plant Research*, 2008, Retrieved from; <http://library.wur.nl/biola/bestanden/1873223.pdf> , on 15.04.2009

Lindqvist, Oliver. "Technology and Policy for Sustainable Development'', 2002, Centre for Environment and Sustainability, p.11, Retrieved from; <http://www.miljo.chalmers.se/epsd/Techn%20SD.pdf> on 11.03.2009

Making Money Matters, Too- Profits from Organic Cropping Systems Can Equal or Exceed Profits from Conventional Farming, Retrieved from; <http://www.heall.com/healingnews/june/organics.html>

Mary V. Gold, "Organic Production Organic Food: Information Access Tools?'' , United States Department of Agriculture, June 2007, Retrieved from; <http://www.nal.usda.gov/afsic/ofp/#intro>

Oğurlu, Ebru. "The Effects of the Customs Union on the Trade Relations of Turkey with Third Countries'', Marmara University European Community Institute (Unpublished Thesis), Istanbul 2001, p. 68

Organic Agriculture, Iowa State University, Retrieved from; <http://extension.agron.iastate.edu/organicag/> on 17.07.2006

Organic Agriculture: The Challenge of Sustaining Food Production While Enhancing Biodiversity, *United Nations Thematic Group Sub-Group Meeting Wildlife, Biodiversity and Organic Agriculture* Ankara Turkey 15–16 April 2003,p. 7, Retrieved from; <http://www.fao.org/DOCREP/005/AD090E/AD090E00.HTM>

Organic Agriculture in Turkey 2004, Export Promotion Centre of Turkey (IGEME), Department of Agriculture, Retrieved from; http://www.organic-europe.net/country_reports/turkey/default.asp on 04.05.2004

Organic Farming: Conserving Top Soil, Retrieved from;

<http://www.teachersdomain.org/resources/ess05/sci/ess/earthsys/organic/index.html>

Organic Farming in the United Kingdom 2005, National Statistics:

Joint Annoucementon Organic Farming statistics as of January 2006
(released Sept 28, 2006, Retrieved from;
http://www.organiceurope.net/country_reports/great_britain/default.asp

Organic Food Assessment Market 2006, Key Note Publications Ltd. Feb. 2006,

Retrieved from;
http://www.researchandmarkets.com/reportinfo.asp?cat_id=0&report_id=328446&q=Organic%20Food%20Market%20Assessment%202006&p=1

Richter, Toralf. “Are the Organic Consumer Labels Conveying the Right Message?”

European Hearing on Organic Food and Farming-Towards a European Action Plan, January 2, 2005, URL:
http://orgprints.org/00002657/01/richter-2004-actionplanpublikationen_powerpoint.pdf

Robert, Damulira. “Sustainable Organic Agriculture As A Technique For Rural

Community in Development”, 2005, Retrieved from;
<http://www.villagevolunteers.org/PDFs/Travel%20Documents/Projects%20Library/SustainableOrganic.pdf?PHPSESSID=1f62a10233c774c8af29b49957df0e8f>
on 23.03.2009

Riddle, Jim. “The Constellation of Organic Values”, *A longer version of this article*

was presented at the 2005 MOSES Conference in LaCrosse, Wisconsin,
Retrieved from; http://www.edenfoods.com/issues_important_values.html

Role of Organic Agriculture in Combating Desertification, International Federation Of Organic Agriculture Movements, *Annual Report 2004*, Retrieved from; http://www.ifoam.org/organic_facts/benefits/pdfs/IFOAM_Role_of_OA_in_combating_desertification.pdf

Sayın, Cengiz. “Avrupa Birliğinde Organik Tarıma Yönelik Politikalar”, *Akdeniz Üniversitesi Ziraat Fakültesi Dergisi*, 2002 15 (2), p.31-38

Sayın, Cengiz. *Dünya, AB ve Türkiye’de Organik Tarıma Yönelik Gelişmeler ve İzlenen Politikalar*, Akdeniz Üniversitesi Ziraat Fakültesi Tarım Ekonomisi Bölümü ANTALYA, 2002.

Scialabba, El-Hage. Nadia & Douglas, Williamson (2004), ‘‘The Scope of Organic Agriculture, Sustainable Forest Mnaagement and Ecoforestry in Protected Area Management’’, FAO, Retrieved from; http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/y4137e/Y4137E00.htm December 25,2004

Tarımda Yenilenme Stratejisi, Tarım Reformu Uygulama Projesi, 2003, Retrieved from; <http://www.arip.org.tr/tys.htm>

The European Market for Organic Fruit and Vegetables, *Organic Monitor*, June 2005, Retrieved from; http://www.researchandmarkets.com/reportinfo.asp?report_id=304982, on 21.03.2006

The European Market for Organic Juices, *Organic Monitor*, Oct. 2002, Retrieved From; http://www.researchandmarkets.com/reportinfo.asp?report_id=19774

The FAO/WHO Codex Alimentarius Commission Guidelines for the Production,

Processing, Labelling and Marketing of Organically Produced Foods, GL 32-1999, (Rev.1 - 2001), Retrieved from; <http://www.fao.org/organicag/doc/glorganicfinal.pdf> on 23. 04. 2006

The Ramsar Convention on Wetlands, 2003 – 2008 National Wetlands Strategy for Turkey, 2002, Retrieved from; http://www.ramsar.org/wurc/wurc_stratplan_turkey.htm

Türk, Rahmi. & Ersegün Sarı, *Organic Tarima Başlarken* Bursa Ticaret ve Sanayi Odası Yayınları Bursa, Ekim 2004.

Ulrich, Hamm & Friederike, Gronfeld. *The European Market for organic Food. Revised and Updated Analysis*, OMIARD, Wales: The University of Wales Aberystwth, 2004.

UNEP – UNTAD “Capacity Building Task Force on Trade, Environment and Development”, 2007, *International Symposium on Environmental Requirements and Market Access*, Retrieved from; http://www.unep-unctad.org/CBTF/events/geneva5/WordBackground_note_organic_agriculture_01102007.pdf

Winch, Rachel. “Community Supported Agriculture: A Model for Combating Distancing”, 2005, Sustainable Development Research Paper, p.12, Retrieved from; <http://www.williams.edu/ces/mattcole/resources/onlinepaperpdfs/hardie/winch.pdf> on 29.04.2009

World Trade Organization, Ministerial Conference, 4th Session, WT/MIN(01)/DEC/1, 2001, p.3, Retrieved from; http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.pdf, 10.09.2009

Yussefi, Helga Willer Minou. ‘‘World of Agriculture Statistics and Emerging Trends
2004’’, 2004 Retrieved from;
http://www.soel.de/inhalte/publikationen/s/s_74.pdf

Web Sites

<http://www.ucs.iastate.edu/mnet/organic06/home.html>

<http://www.organic-europe.net/world/2006-main.asp>

<http://europa.eu.int/scadplus/leg/en/lvb/60002.htm>

http://ftp.fao.org/paia/organicag/2005_12_doc04.pdf

<http://www.greenearthorganics.com/tenreasons.asp>

<http://www.greenearthorganics.com/tenreasons.asp>

<http://attra.ncat.org>

<http://statistics.defra.gov.uk>

<http://www.intute.ac.uk>

<http://www.soilassociation.org>

<http://www.bugday.org>

<http://www.copa-cogeca.com>

<http://www.egebirlik.org>

<http://www.isofar.org>

<http://www.izto.org.tr>

<http://www.nal.usda.gov>

<http://www.organic.aber.ac.uk>

<http://www.organic-europe.net>

<http://www.organical-liance.org>

<http://www.ota.com>

<http://www.soel.de>

<http://www.tarim.gov.tr>

<http://www.organicconsumers.org>

<http://www.farmradio.org>

<http://www.metrofarm.org>

<http://www.fao.org>

<http://www.heall.com>

<http://www.certifiedorganic.bc.ca>

<http://www.researchandmarkets.com>

