

TURKEY - FINLAND FRESH FRUIT AND VEGETABLE TRADE

**Can Turkey, a self-supporting agriculture country, meet some of Finland`s fresh
fruit and vegetable demands?**

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<p>Abstract</p> <p>Globalization, developments in logistic and in agricultural manufacturing, new agricultural techniques are influencing everything in human life. One of the industries that have been influenced by this new world order is agriculture. The agricultural production and trade of European countries have substantially changed. One of these countries is Finland. Finland has started to face problems in its production and trade due to global warming, the European Union (EU) regulations and other factors. Accordingly, Finland is today a dependent country as for its agricultural production. This thesis was based on the assumption that Turkey is a good candidate for a trade partner with Finland in that Turkey's exports of fresh fruits and vegetables could solve the issues regarding the foods market in Finland. The aim of this thesis is to establish infrastructure for fresh fruit and vegetable trade between Finland and Turkey. Turkey as a supplier of fresh fruit and vegetables has the needed infrastructure such as production, transport and high level standards.</p> <p>The research question was: Can Turkey, a self-supporting agriculture country, meet some of Finland's fresh fruit and vegetable demands? In Finnish market, there are products of various non EU countries such as Argentina, Brazil, South Africa, Israel, Egypt, Morocco, etc. Except for a few special products of Turkey (cherry, figs, and apricot), no Turkish fresh fruit and vegetable products are available. These countries are not members of EU, but Turkey is a candidate member of the EU. In addition, Turkey is geographically closer to Finland offering the same products or even more. Why does Turkey not have its products in the Finnish market?</p> <p>This question motivated the author to search for the reasons for this situation. Agricultural developments in Finland and in Turkey were compared including agricultural structures, agricultural production situations, product diversity, import and export of agricultural products. Furthermore, the study also focused on what products Finland is importing from supplier countries and what products Turkey is exporting to target countries.</p> <p>The results show that Finland is a big market for Turkish fresh fruit and vegetable products. In that part of Europe, high-quality products, EU standard products and a diverse product range are some of the advantages of Turkey. Turkey's future membership in the EU will also support this trade. The companies importing fresh fruit and vegetable products to Finland should think of partnering with Turkish agricultural manufacturers. Finnish government should also encourage this by removing barriers and granting tax allowances before Turkey joins the EU.</p>		
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1 INTRODUCTION

The agricultural production in the world has evolved so much that the traditional production methods have been totally halted, and the agricultural production has been highly mechanized in the last 200 years. In the same period, the economies have transformed from agricultural economies to the economies of mass manufacturing and industries have evolved after the Industrial Revolution. Urbanization has started to rise owing to the requirements of the Industrial Revolution and mass production. As the urbanization has increased, the rural regions of the world have started to decline. However, the volume of agricultural production has continued to increase due to the improvements in productivity and efficiency owing to the technological breakthroughs in agricultural production.

On the other hand, the climate has started to change so that average temperatures have started to rise globally as specified in the detailed analysis carried out. This is expected to deepen the issues of lack of water resources in the globe more seriously. Indeed, the world prices of agricultural production have already started to rise up. This eventually starts to influence the agricultural production negatively. More importantly, the genetic engineering has evolved so much that the production of Genetically Modified plants and agricultural products has become possible.

In order to deal with all those issues, some economies have decided to focus on trade associations, common markets and trade agreements. The European countries have created the common market of goods and services through the development of the European Union (EU). However, these trade associations and common markets do not generate the expected results for every country. The emergence of the European common market has forced the countries such as Finland to be net importers of the agricultural production within the common market. Furthermore, the agricultural industry of Finland could not reach to the expected levels due to the climate of the country, and global warming even makes it worse for Finland. The dryness has increased by also negatively affecting the production of specific products in the agricultural market of Finland. To sum up, Finland has started to come across serious problems with the nutritional demand of her own population.

1.1 Subject of the Thesis

This thesis focuses on the fact that Turkey, as being a self-supporting agricultural producer and exporter, is capable of also exporting fresh fruits and vegetables to Finland. In other words, regardless of the global and local conditions that affect the agricultural production and trade

between Turkey and Finland, the agricultural production of Turkey is capable of satisfying the agricultural demands of Finland. In this regard, this thesis investigates the fresh fruit and vegetables production, quality of production, trade balance between Finland and Turkey through a detailed analysis of the relevant literature. The first part of the study analyzes the agricultural production and import-export levels of Finland and the quality of production including the criticism on whether the local production of Finnish economy is enough to satisfy the local food demand or not. In the second part of the study, the quality, volume and exports levels of the Turkish economy are analyzed in detail. In the third part, the factors that could negatively and positively affect the trade relation between Turkey and Finland for the agricultural market will be critically investigated. In the last part, based on the given statistics and analyses about the past and future of trade between Turkey and Finland, the future needs of Finland economy and the agricultural production of Turkey will be analyzed in detail.

1.2 Purpose of the Thesis

This study mainly aims to show that agricultural and food requirements of Finland population today and especially in the future could be met through the exports of agricultural products from Turkey. Although, there are limitations for the export from Turkey to Finland, this study tries to answer the question of whether Turkey is capable of satisfying the fresh fruit and vegetables demands of Finland or not based on the given global market and local market conditions.

1.3 Importance of the Subject of the Thesis

Globalization, the information technologies, evaluation and emergence of common markets, the climate and natural environment and so many factors have separately or all together affected many economies, many industries and dynamics in the politics; it is inevitable not to see any influence in the agricultural market as well (Niemi and Ahlstedt, 2007, pp. 30-31; Ozturk, 2002, pp. 47-48; Hietala- Koivu, 1999, pp. 103-104).

Initially, the technology has changed, and the productivity of the agriculture has started to depend on the mechanization rather than physical power (Ozguven et al., 2010, p. 89). The urbanization has increased, the rural areas have declined and eventually the arable lands have started to decrease. Although, the arable lands start to decline, the agricultural production has continued to increase owing to the improvements in production techniques. Today, indeed, the Genetically Modified plants and foods have started to be discussed. In short, the agricultural industry has

evolved substantially through time but the changes in the last century could be regarded as radical changes. Moreover, the problem of global warming has started to threaten the agricultural productivity and quality of agricultural production at global and local levels.

Based on all those current and future possible conditions prevailing in the agriculture market, Finland has turned into an importer of the agricultural production especially after their membership to the EU has been initiated in 1995. Once Finland has been a member of the Union, Euro Zone and the European common market of goods and services, the country has started to meet their population's food requirements through imports from the European Union. Furthermore, global warming has negatively affected the quality of the specific agricultural products, i.e. cereals, of Finland recently. In other words, all those factors of globalization, global warming, trade associations, i.e. the European common market as specified above, have also affected the agricultural production and trade in Finland. The future is even expected to deepen the problems in the agricultural sector of Finland. Therefore, as any other country, Finland needs a trade partner regarding the agricultural and foods market.

This study, in this regard, suggests that Turkey, with its geographical and climate advantage and improvements in its agricultural production techniques, is one of the best candidates to be a trade partner for Finland. This study provides significant proofs and results regarding the agricultural production and trade between Finland and Turkey such that once the trade is initiated both of the countries could gain from this unilateral trade.

To sum up, this study matters for the future of the agricultural market of Finland but most importantly matters for the health of the current and future generations of Finland. This is because the recent trends as specified above have negatively affected the quality of foods and nutrition in most of the cases. More seriously, this study finds out that the future of agricultural market could be more threatening for the world economies as the prices of agricultural production have already started to rise at global level. Therefore, the trade relations initiated today between Finland and Turkey could even change the future economic outlook of Finland. In short, this thesis provides significant conclusions regarding the current and future of Finnish economy.

1.4 Assumptions of the Thesis

In this thesis, initially it is assumed that the agricultural production of Finland is not enough for providing the nutrition needs of the Finnish population such that in the future, the imports of

agricultural production of Finland could even increase more. Secondly, it is assumed that the agricultural production of Turkey is much more than the demand of the local market, therefore the country is regarded as a net exporter of agricultural production. In this regard, the main assumption of this work has been that the agricultural production of Turkey is also enough to satisfy some or all of the agricultural demand of Finland.

1.5 Methodology

This study has been developed and evaluated based on the previous empirical and theoretical works of the academic literature and also the statistics about Finland and Turkey and the volume and quality of their agricultural production and import-export levels. In other words, in this study, the literature review and quantitative research method (critical analysis of the current and past statistics) are evaluated as the main methodologies.

1.6 Expected Results

To begin with, the main expected result of this study is that the quality and the volume of Turkish agricultural production is enough to satisfy the nutrition demands and requirements of the Finnish population. But it is also expected that this fact depends on the relations between the EU and Turkey and more importantly this depends on how Turkish agriculture sector could develop the volume, economic efficiency and also quality of their fresh fruits and vegetables production today and in the future.

2 AGRICULTURE IN FINLAND

2.1 History of the Agricultural Development in Finland before the EU Membership

The agricultural production and market of Nordic countries has experienced tremendous level of and substantial changes on the structure of their agricultural industry structure, quality of production and volume of production for the last 300 years. Till 1700s, they had used the old-fashioned agricultural production technologies. Till 1700s and also till 1800s, they had experienced many environmental disasters that all have affected the agriculture production negatively (Blomström and Kokko, 2002, p. 5). The implementation of the traditional agricultural production technologies and also environmental issues have also influenced the agriculture sector heavily (Blomström and Kokko, 2002, p. 5).

On the other hand, the agriculture sector had experienced substantial transformation and development in Finland in 18th and 19th centuries. First of all, the ownership of land had been taken under protection and guarantee owing to many new regulations such that the fairness in land ownership was aimed to be guaranteed through dividing the land into separate and many portions and assigning them to all families. In this way, they had aimed to create the fairness in the agricultural sector among the rural population (Blomström and Kokko, 2002, pp. 5-6). On the other hand, the concerns about the fairness destroyed the application of the economies of scale principle. Moreover, the importance of mass production of the agricultural products had been ignored. In other words, that time they had started to experience many economic inefficiency issues in the agricultural sector of Nordic countries (Blomström and Kokko, 2002, pp. 5-6).

Each rural family was just able to satisfy their own needs of food. There was no coordination in the agricultural sector because the industry had been divided and fragmented into small portions by being equal to the number of rural families (Carlsson, 1980, pp. 210). In the following periods, the land was reassigned again among the rural families such that that time the area of land provided to each family was enlarged. Each family had one big land that is suitable for agricultural production rather than having small but many areas (Carlsson, 1980, pp. 210).

Besides the land reform, the production techniques had been improved and traditional techniques had been out of usage. The machinery usage and the abandonment of the usage of the physical power in agricultural production had also increased the productivity and eliminated the adverse effects of the fragmentation in the agricultural production lands (Blomström and Kokko, 2002, p. 6). They have stated that improvements on the quality of the fertilizers also contributed into the productivity of the agricultural areas of Finland. Indeed, the overall development of Finland had been based on the improvements on the agricultural sector. Due to the increase in productivity and also improvements in the medicine sector, the population had grown much rapidly such that the increase in population was used to improve the urban-rural structure of the country (Blomström and Kokko, 2002, p. 6).

To put it in other words, the increase in the agricultural production supported the population growth directly and urban structure indirectly. The comparative advantage principle was also adopted in that period, and Finnish agriculture had focused on the production of specific agricultural products such as cereals (Blomström and Kokko, 2002, p. 8). Moreover, this could be understood as the improvements in the development of the international marketplace had created an environment where the variety in food categories had been supported and provided to any country in the world. In addition, Finland had been more able to focus on specific products that provided advantage to their economy in the global marketplace.

The traditional manufacturing systems of the agricultural products have been applicable for the Finnish market till the end of 1800s. Traditionally, the fodder as a livestock has dominated the agricultural production of Finland (Emanuelsson, 1988, pp. 111-116; Pykälä, 2000, pp. 708-709). Since 19th century, the Finnish agricultural production, mostly due to the climate and environmental conditions, has focused on the production of cereals in the rural regions. However, the forests are used for the habitation and accommodation by the Finnish rural population (Soininen, 1974, p. 1). The basic food consumption for Finnish population, at that period, was basically dependent on the livestock. As a result, the lands had been mainly used as a pasture and meadow for the livestock. In other words, the agricultural production just took a small portion of the rural lands (Pykälä, 2001, pp. 50-60). In the following periods, the cattle production had increased so much that the grass and other nutrients for the cattle had not been enough for feeding the cattle. Eventually, the milk and meat production became less and less. Then, the Finnish government decided to change their agricultural and livestock policies substantially since the end of 19th century (Pykälä, 2000, pp. 710-711). As a result, the Finnish government had been more focused on the agricultural production rather than livestock production (Luoto et al., 2003, pp. 448-450).

At the beginning of 21st century, Finland has had more than 2.5 million-hectares valued areas of lands, which has only corresponded to more than 8-% of the total Finland. However, the forests have accounted for almost 70-% of the overall country owing to the high level of afforestation and water for more than 10-% of Finland (Statistics Finland, 1998). Ruuska and Helenius (1996, pp. 567-570) and Hietala-Koivu and Peltonen (1997, p. 131) have emphasized that the variability in the usage of land of Finland has been simpler than ever before. Since, the development of genetic engineering and production technologies in 20th century those have resulted in the fact that the lands have been reduced, but the increase in productivity has eliminated the negative effects of the reduction in the size of the agricultural lands (Hietala-Koivu, 1999, pp. 103-104).

2.2 The Agriculture and Foods Sectors and Policies in Finland after EU Membership in 1995

Finland has been a member of the EU since 1995 which implies that the agricultural production and policies are not fully under the control of the Finnish government. Therefore, Finland, as one of the member countries of the European Union, has experienced radical changes in their economy ranging from the industrial structure to the agricultural production and agricultural variety. The main reason is that Finland's economic policies are not independent of the economic policies of the overall European Union. Moreover, the increase in globalization, openness of the borders to

the global competitors due to both globalization and the emergence of European Union has resulted in a larger volume of trade liberalization and more interaction with the tropical and exotic agricultural products such as products of Spain and Italy. Furthermore, the European Union (EU) has been a larger union since 1995 when Finland joined it. (Rikkonen, 2005a, pp. 205-208). This means that many European countries have gained access to the common market that EU has created. Therefore, Finland has become more open to the international trade.

In order to create a common market for agricultural production, the Union had pursued a price support for a while, but recently the intended price support has been replaced by direct income support within the reforms of CAP (Common Agricultural Policies) (Rosset, 2000, pp. 78-80). More importantly, the CAP of the Union has focused on the multi-functionality of the agriculture sector. The multi-functionality of agriculture includes the externalities produced beside the agricultural production. Those multi-functions basically include food security, negative externalities created by agricultural production such as pollution, carbon-dioxide emission and protection of the rural areas and preservation of the forest areas and the safety of the animals and protection of the animal species` variety (Rosset, 2000, pp. 78-80). Although, the protection of the environment and the decrease in the carbon-dioxide emission have been commonly agreed by the Union and member countries, there are still disagreements about the protection of the rural areas, the employment security of the rural people and the protection of their accommodation areas.

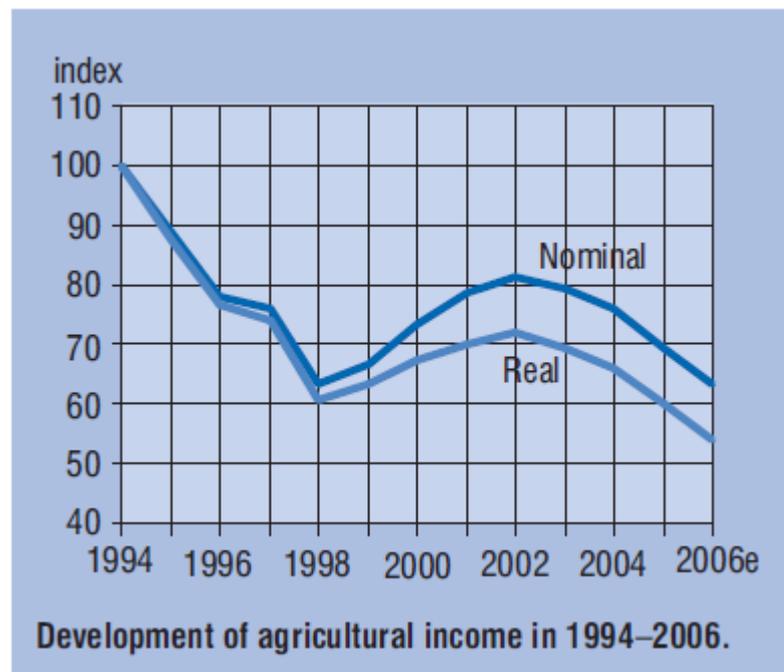
With respect to the agricultural production of Finland, those common agricultural policies (CAP) of the Union has been relevant for the country since 1995. Indeed, the EU membership has radically influenced the agriculture market and production of Finland just one year after the membership, the market price for the Finnish agricultural production has declined by more than 35-% (Kettunen, 1996, pp. 20-21). The initial price support policies had been also pursued for the Finnish agricultural production. In those price support policies, the main goal was to provide a minimum market price for the agricultural productions of the local farmers.

However, after 1995, the price support policies of Finland has been replaced by the direct income support to the agricultural producers and farmers. Those direct income support measures to the agricultural industry have been basically promoted by the Union.

Before the income support policies started to be supported by the EU, the price support and price-floor applications for the agricultural production market had resulted in over-production in the market. This is because the price guarantee had directed the local farmers to produce more for higher returns in the market (Yrojola and Kola, 2001, pp. 298-290). Overproduction in the Finnish agricultural market has also received pressures from the international market.

However, it is assumed that the direct income support has improved the living conditions of the agricultural producers, farmers and the rural people without affecting the production, consumption and trade balances of the agricultural production in Finland. In other words, the country and EU have aimed to let the market reach the equilibrium level without any intervention (Yrojola and Kola, 2001, pp. 296-298). In that way, they have also aimed to totally get rid of the deadweight losses created by the price floor in the market. More importantly, the import of agricultural products from abroad has also been tried to be decreased. What is more, the Union has aimed to prevent the international market equilibrium from the market interventions resulting from the price support policies of Finland and other member countries.

Figure 1: Development of Nominal and Real Agricultural Income of Finland in 1994-2006



Source: Niemi and Ahlstedt, 2007, p. 8.

The line graph above reveals that there has prevailed a declining trend in the agricultural income of the farmers and rural population since 1994 and EU membership of Finland in 1995. The further decline in 2002 and in the following periods reveal that the CAP and multi-functional concerns of the EU have lowered the price levels of agricultural products and income of the rural people (Niemi and Ahlstedt, 2007, pp. 8-9). In order to assist the rural population, the EU has initiated the direct income support program for them in order to prevent them from moving to urban areas and leaving the agricultural areas. In other words, this would have implied the total end of the agricultural production and sector of Finland. Moreover, the decline in the agricultural income cannot be explained only due to the decrease in the price levels. Figure 1 reveals that not

only the nominal income but also the real income of agricultural sector has declined. This implies that the real production in Finland has also decreased (Niemi and Ahlstedt, 2007, pp. 8-9).

In their study, Yrjölä and Kola (2001, pp. 299-303) have analyzed the changes created by the multi-functional based agricultural policies of the EU and the decrease in the agricultural support followed by the Finnish government on their national agricultural sector. They have concluded that basically the reduction in the agricultural support and increase in considerations about multi-functions of agricultural sector have generated the consequences of increase in the imports and decrease in the living conditions of rural population and farmers. However, there have been environmental improvements such as decrease in the air and water pollution. To sum up, the CAP pursued by the EU has made the Finnish food market subject to higher levels of import of those agricultural products but they have aimed to help the country to protect their environment.

With respect to the diversity of plant and animal species, the policies of EU have not been successful. For instance, Finland has experienced a severe loss of bio-diversity since the EU has created the incentives for the farmers to focus on the agricultural products that provide a comparative advantage for the Finnish economy. Therefore, the diversity has declined, but the productivity of certain agricultural products has increased in Finland. Moreover, the environmental concerns have resulted in many arable lands being transformed into forests with the agricultural areas being declined as well (Jongman, 2002, p. 216; Poschlod and WallisDeVries, 2002, pp. 365-370). In other words, the economic and environmental concerns are expected to create a limited bio-diversity for the Finnish agricultural market and this, eventually, increases the dependence of the Finnish food market on the foreign countries and the EU (Luoto et al., 2003, p. 449).

Before Finland joined the EU, the livestock animal production has continued to be important as well due to the price support. But the price support has been replaced by regional and/or income support once the EU membership of Finland has been started in 1995. The main result of this membership has been the price decrease of the agricultural products (Kettunen, 1996, p. 18). In order to protect the green areas and the biodiversity of green areas, the rural people have been supported through the income assistance programs of the Union. As a result, the area of meadows has also decreased.

2.3 The Current Situation of Agriculture and Foods Sectors in Finland

Table 1 summarizes the changes in the agricultural sector and agricultural production levels of Finland. There is a significant decline in the number of farms since the EU membership of Finland in 1995. This implies that not only agricultural production declines, but also the rural population dealing with the agricultural production is declining as well (Niemi and Ahlstedt, 2007, pp. 49-50). This reveals that the EU's CAPs have been basically considered the environmental protection rather than the protection of the rural population. In other words, the income support policies of Finland and the EU have not generated the outcomes targeted before (Niemi and Ahlstedt, 2007, pp. 49-50). The statistics reveal that the agricultural sector of Finland has started to be smaller in size after the EU membership.

Table 1: Number of Active Farms and Agricultural Income in 1994-2006

Number of active farms and agricultural income in 1994–2006.					
	Number of farms	Change from previous year %	Change from 1994 %	Agricultural income at 2006 prices, € million	Index 1992–94 average: 100
2006	68,766	-0.5	-33	893	59
2005	69,088	-2.8	-33	993	65
2004	71,100	-1.3	-31	1,099	72
2003	72,000	-1.9	-30	1,152	76
2002	73,386	-2.7	-29	1,191	78
2001	75,384	-3.2	-27	1,161	76
2000	77,896	-5.2	-24	1,114	73
1999	82,142	-4.1	-20	1,051	69
1998	85,690	-3.0	-17	1,006	66
1997	88,370	-3.2	-14	1,222	81
1996	91,281	-4.5	-11	1,268	84
1995	95,562	-7.2	-7	1,452	96
1994	103,000 ¹			1,658	109

¹ Estimate of the MTT Economic Research, Agrifood Research Finland.
Sources: Total calculation of the MTT Economic Research, Agrifood Research Finland, Support register of the Ministry of Agriculture and Forestry (MMM).

Source: Niemi and Ahlstedt, 2007, p. 9.

Barrett (1992, pp. 90-95) and Bakkes (1997, pp. 384-385) have specified that regarding the agricultural industry, there has always been an indirect trade-off between the cost effectiveness of the agriculture sector and the product variability and the nutrition variability. In this regard, the reduction in the lands due to the environmental and economic concerns results in a decrease in the biodiversity of the agricultural production. The agricultural sustainability, today, implies not only

the provision of the food needs of the population but also protection of the natural resources and the environment (Gianinazzi and SchuÈepp, 1994, pp. 102-105). Therefore, in today's Finland, the environmental concerns are much more important than the diversity in the agricultural production since the global marketplace and the European market have considered the importance of the biodiversity as well (Hietala-Koivu, 1999, p. 106). This is also relevant for the overall European countries. Especially after the acceptance of Kyoto Protocol, the environment has been the most important concern of the developed countries of the EU.

The statistics regarding the land usage in Finland also reveal that Finland has implemented the CAP initiated by the EU such that Finnish government has revised its policy concerns toward the protection of environment. The usage of the land for the accommodation and transportation has increased due to the increase in the urbanization. The forest areas have been also increased substantially due to the environmental concerns (Hietala-Koivu, 1999, pp. 106-108). Furthermore, the agriculture areas have declined, but the farm areas have increased because the technological developments and usage of machinery in the sector have required larger places for the storage of the agricultural production and the machinery used.

Because of the reasons explained above, the Finnish agriculture sector has experienced radical changes on its own structure during the end of the previous century. According to the statistics, the farms have been reduced and indirectly this has resulted in the reduction in the agricultural employment and rural population. However, the productivity of the remaining regions has increased as it is explained above, owing to the technological changes (Kola, 1998, pp. 181-185; Niemi and Ahlstedt, 2007, pp. 58-60). However, eventually, after the EU membership, the agricultural production price level has decreased by almost half of it.

Table 2: Number of Farms Receiving Agricultural Support in 1996-2006

Number of farms receiving agricultural support in 1996–2006.											
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Whole country	91,281	88,370	85,690	82,142	77,896	75,384	73,386	72,000	71,100	69,088	68,766
Southern Finland ¹	41,351	39,998	38,623	37,037	35,319	34,192	33,375	32,771	32,245	31,272	30,967
Eastern Finland	16,652	16,067	15,446	14,658	13,675	13,219	12,935	12,630	12,498	12,121	12,173
Central Finland	23,694	22,914	22,072	21,108	20,019	19,443	19,023	18,656	18,458	17,986	17,947
Northern Finland	9,584	9,391	9,549	9,339	8,883	8,530	8,053	7,943	7,899	7,709	7,679

¹Main regions of Uusimaa and Åland according to NUTS II have been included in Southern Finland.
Source: Support register of the Ministry of Agriculture and Forestry/Information Centre.

Source: Niemi and Ahlstedt, 2007, p. 20.

The table 2 above summarizes the agricultural support provided for the farmers in Finland and regional levels for the period after the EU membership of Finland. Regardless of the regions, there

is a decreasing trend in the number of farms receiving the agricultural support from the EU and the Finnish government. This also indicates that there is a reduction in the number of rural population that works in the agricultural production (Niemi and Ahlstedt, 2007, pp. 20-21). To sum up, the statistics have all provided the information that the Finnish agricultural production is continuously decreasing especially after the EU membership of the country. Although the dependence of the Finnish population and economy on the foreign agricultural market has been increasing, the economy at the same time, has been focused on more value-added industries such as the mobile-phone industry i.e. Nokia and other similar high-tech based industries.

According to the statistics provided in the table above, the number of farms that have been applied for the income support equals around 60-70 thousand. However, the same number was equal to around 90 thousand just before the EU membership of Finland. This implies that the number of farms operating in the Finnish economy has declined by more than 30-% in the ten years from 1995 to 2005 (Niemi and Ahlstedt, 2007, pp.20-22). On the other hand, the statistics also reveal that the decrease in the number of farms has been recently slowed down. From 2005 to 2006, the fall in the number of farms has been less than one percent which is much smaller than the annual decline in the number of farms, on average 3-%, in 2006 (Niemi and Ahlstedt, 2007, pp. 20-22).

However, the size of an average farm in Finland has an increasing trend in the 1990s and 2000s. Although the number of farms has substantially declined, the farm size has grown in the same period. This indicates that there is an increase in the consolidation of the agricultural sector of the Finnish economy. Within ten years, the average size of the farms receiving agricultural support has increased from 20 hectares to around 30 hectares (Niemi and Ahlstedt, 2007, p. 88). More importantly, the increase in the farm size implies that there has been an increase in the economies of scale meaning that the unit cost regarding the agricultural production has declined. Also, the farms have been able to generate mass production. In the past, every farm had been only able to satisfy their nutrition requirements but they had not been able to sell their production into the market.

Furthermore, the main reason for the price decline has been that the Finnish regulatory agencies and government have no control over the price levels in the agricultural sector anymore. Moreover, the Finnish government has had less opportunities and resources for the development of the region and their transformation into areas for agricultural production (Niemi and Ahlstedt, 2007, p. 15, 72). Since 1995, the environmental protection of the water and air has been more important for Finland. Moreover, the climate changes, the implementation of genetically improved foods and agricultural products have forced the Finnish market to apply the new production methods for the agricultural sector. Except for those developments in the political and economic

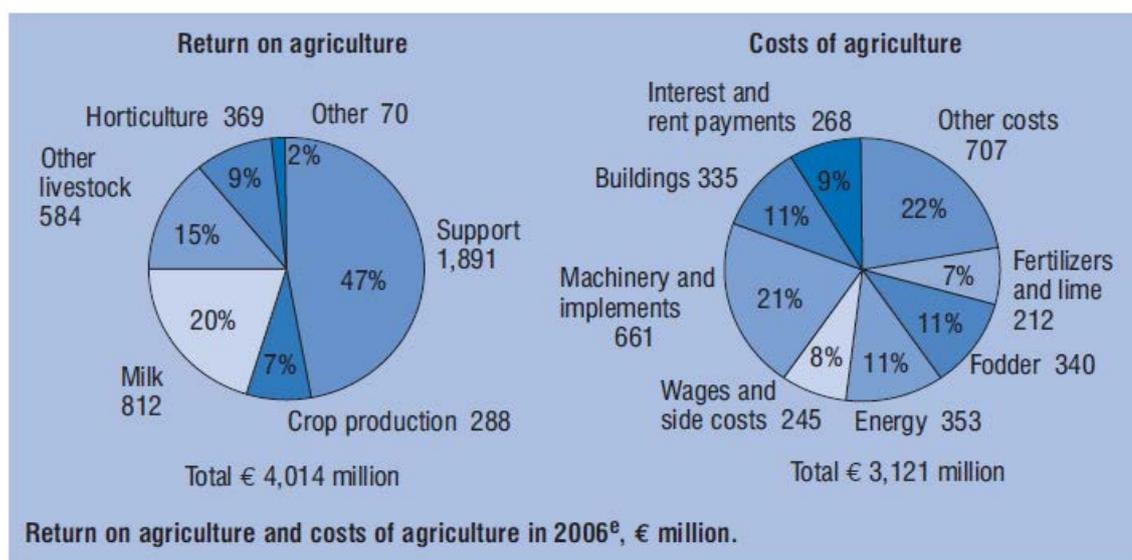
environment of Finland, the agricultural productivity of the country has increased owing to the developments in the high technologies in the agricultural industry. Genetic engineering applications, gene based developments and technical improvements in the watering of the farms have all improved the productivity in the agricultural production of Finland in the last century (Rikkonen, 2005a, pp. 205-209). Eventually, all those technical, political and economic developments have been highly influential on the indicators of agricultural industry of Finland (Bruinsma, 2003, pp. 299).

Once the economic indicators regarding the agricultural and foods sector of Finland have been considered, the statistics show that during the first decade of the 21st century, the revenue of the agricultural production has been decreased by less than 6-% mainly because of the decrease in the harvest generated from the potato and cereals. However, the sales price of the cereals in the world market has increased the revenue generated by more than 2-% (Niemi and Ahlstedt, 2007, p. 28). More seriously, the most important loss was generated by potato production. The revenues generated from potato sales have been decreased by almost 30-% because of the low quality of the potato production (Niemi and Ahlstedt, 2007, p. 57).

On the other hand, the return on oilseeds has risen by the ratio of 40-% owing to the increase in the harvest area for oilseeds, increase in the world price levels of this product and the high quality of the oilseeds produced by the Finnish agricultural sector (Niemi and Ahlstedt, 2007, p. 57). Although the revenue and gross return from some agricultural crops partly increased and partly decreased, there has been a considerable increase in the price of the machinery and technology used in the agricultural production. The overall increase in the cost of agricultural production machinery and equipment has even exceeded the level of the inflation based on the common basket of consumer price index.

Besides this increase in the fixed costs of the agricultural production, the overhead costs of agriculture have also increased by more than a ratio of 5-%. More seriously, the climate change and the EU membership of Finland have all made the agricultural sector riskier than ever before from the viewpoint of the investors. As a result, there has been an increase in the interest rates of the credits given to the rural population and agricultural sector in Finland. This has negatively influenced the market equilibrium from the view point of the country.

Figure 2: Pie Charts of Return on and Costs of Agriculture in Finland, 2006



Source: Niemi and Ahlstedt, 2007, p. 57.

Figure 2 shows the revenue generated by and costs associated to agricultural production of Finland for the year of 2006 (Niemi and Ahlstedt, 2007, p. 57). The statistics reveal that the biggest portion of the revenue is generated by the agricultural support provided by the EU. In this regard, the market equilibrium might be even worse for the rural population and the agricultural sector if the EU did not provide any direct income support for this sector. Otherwise, the EU CAP policies could also be blamed for this result. Most importantly, the second biggest source of income in the agricultural sector is from the livestock products and dairy products. The smallest return is from the crop production. In this regard, the actual agricultural production, not including the animal husbandry, does not provide any satisfactory return for the rural population.

Furthermore, the biggest source of the agricultural costs has been the costs associated with the crop production such as machinery and implements. In this regard, it could be declared that: The crop production and the agricultural sector do not seem to be a profitable sector for the economy of Finland. Therefore, it is expected that the future of crop production and agricultural sector in Finland will have been more based on the imports from the EU and also outside of the Union regardless of the type of the food, whether cereals, fruit or vegetables (Niemi and Ahlstedt, 2007, pp. 47-49).

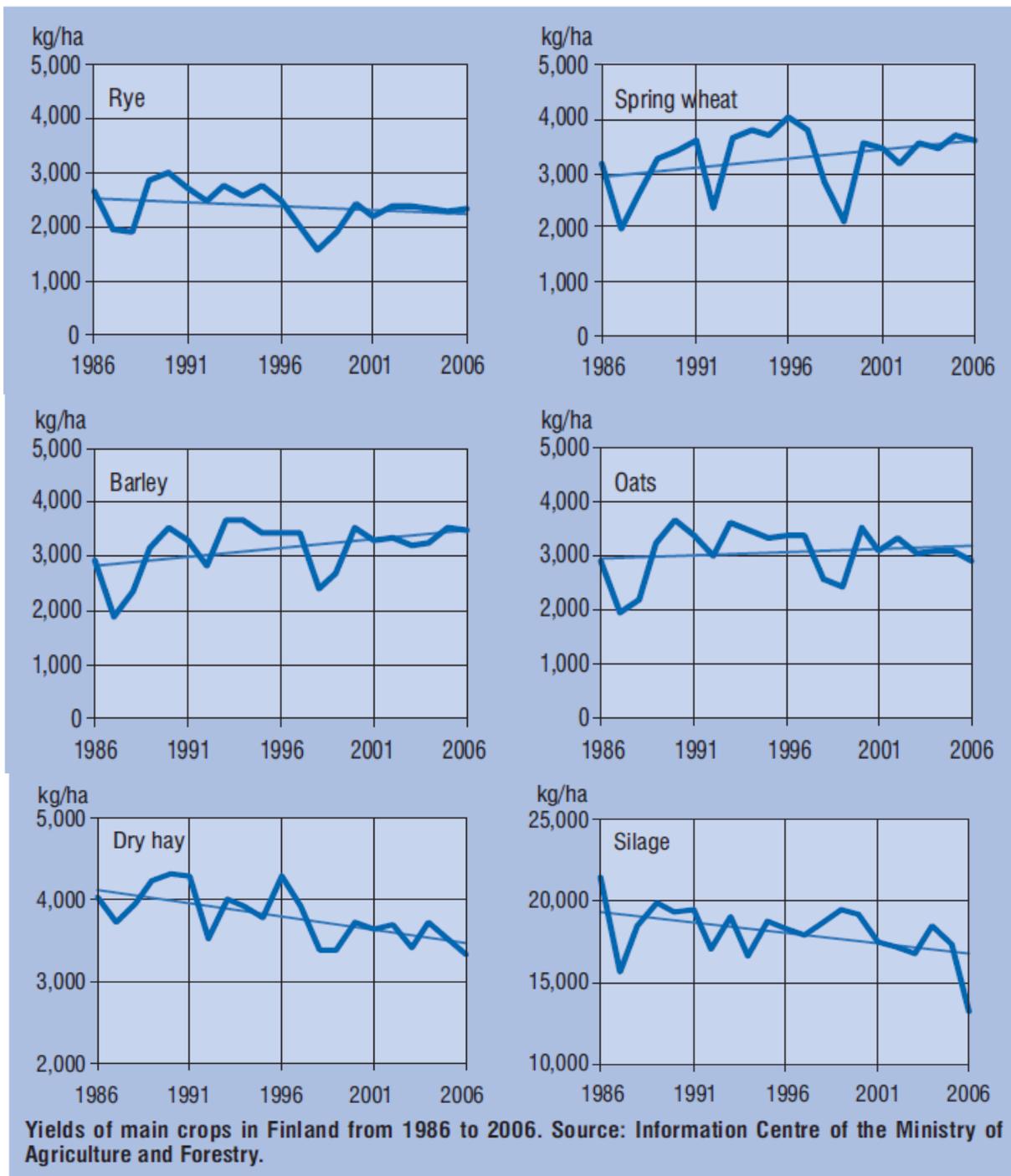
2.3.1 Current Climate Change and Crop Production in Finland

Other important conditions for the agricultural sector and production have been the weather conditions prevailing in the agriculture lands. The statistics reveal that there is an increasing trend

in the average temperature in Finland and also overall globe. More seriously, the statistics reveal that the increase in the temperature has been accompanied with the increase in the growing period of the agricultural products in Finland (Niemi and Ahlstedt, 2007, pp. 24, 36-37). Furthermore, the growing period for the agricultural production has not only been longer than average, but also the growing period has been more problematic as it was before in the past. The temperature during the growing period for the products has been much higher than the average of the temperature for the period from 1970s to 2000s (Niemi and Ahlstedt, 2007, pp. 24, 36-37).

What is more, the summers have been much drier with less rain than they were ever before. The most of Finland has started to experience much sunnier days than usual. However, the autumns have been less full of the rain and the level of the rainfall has only reached to more than 500 mm in the northern parts of the country (Niemi and Ahlstedt, 2007, pp. 24-27). Those levels of between 500-600 mm have been much lower than the average level of the rainfall of the previous periods in Finland (Niemi and Ahlstedt, 2007, pp. 24-27).

Figure 3: Yields of Main Crops of Finland from 1986-2006



Source: Information Centre of Ministry of Agriculture and Forestry in Niemi and Ahlstedt, 2007, p. 26.

Figure 3 above summarize the time trend of the changes on the levels of the specific cereals and agricultural products in Finland. According to the graphs, some of the cereal production has experienced an increasing trend in the production but some others' production has decreased heavily through time. This implies that the Finnish rural people and farmers have preferred to

produce some specific agricultural products, but they have started to end to produce some others most probably because of climate change and other factors.

In the case of Finland economy, the graphs above also reveal that the consolidation in the agricultural sector of economy has been carried out according to the types of the agricultural production (Niemi and Ahlstedt, 2007, p. 26). Initially, the fall in the price of some products of agriculture has created the initiatives of ending the production of those agricultural products and the farmers have preferred to produce the specific agricultural products that could generate higher income and return than the other foods. There is an increase in the production amount of spring wheat but a decrease in the production amount of dry hay and silage.

With respect to potato production, there is a decreasing trend in both the area used for the potato production and also the volume of the potato production. The statistics reveal that there has been more than 15-% fall in the production of potato. More importantly, it is found out that this rate is increasing in every passing year. Another agricultural product that has been affected by the climate and structural changes in the Finnish agriculture sector has been sugar (Niemi and Ahlstedt, 2007, pp. 27, 47-48, 57). Both the area used for sugar and its production have started to decline. Although the quality of produced sugar has been much higher than before, the heavy rains of autumn of Finland have negatively affected the quality of final production.

To sum up, the production and the quality of some products have been negatively influenced by the climate changes but production of some other agricultural products has been increased for the first time. For instance, oilseeds have started to be produced heavily for the first time in the history of Finnish agriculture sector. Also, the total production generated from oilseeds has reached the highest levels of all time in Finland (Niemi and Ahlstedt, 2007, pp. 8, 27-28). This reveals that as it has been happening in every country of the globe, the climate change is radically changing the agricultural product variety and production volume of Finnish economy as well.

2.4 Trade Balance and Foods Market in Finland

Starting from 20th century, the improvements on the transportation had resulted in an increase in the import and export of agricultural products and livestock animals between Finland and other European countries such as the UK and also Russia. Furthermore, the milk and livestock products had been more demanded in the international market in the 20th century, but there had been a high level of increase in the cereals production in Finland. Eventually, the lands suitable for agriculture again were used for the production of hays. And hays had been needed for the livestock production. In that period, the agricultural production had been ignored by Finnish government

and farmers due to the dynamics in the international agriculture and livestock market (Skrubbeltrang, 1964, p. 166-168; Vihola, 1991, p. 1). Through time up to now, the areas for the livestock animals has been declined from the ratios of 60-% to 1-% of the whole arable lands since 1880s (Vainio et al., 2001, p. 1).

Moreover, the statistics reveal that the export levels of Finnish agricultural sector have been a record at the beginning of the 21st century such that the overall export of the agricultural production of Finnish market has accounted for more than one billion Euro. More importantly, this has meant more than 10-% increase in the annual level of agricultural exports of Finland. However, the imports to the Finnish foods market have increased as well substantially by almost 10-% equaled to amount of almost three billion Euro (Niemi and Ahlstedt, 2007, pp. 45-48). In the same period, Finland economy has experienced inflation at a level of 1.5-% which is highly close to the actual inflation in the overall Finnish economy. However, the long run trend analysis in the price levels of foods market shows that the increase in the foods prices is much higher in the increase in the overall price levels in Finland (Niemi and Ahlstedt, 2007, pp. 45-48). This has also contributed into the import-dependent development of the Finnish food market because the EU common market and global competition have made many economies to be more dependent on the import of foods and products. The main reason for this radical change is that the agricultural sector of Finland has originated from the lower levels of productivity than the other economies that are more based on the agricultural production.

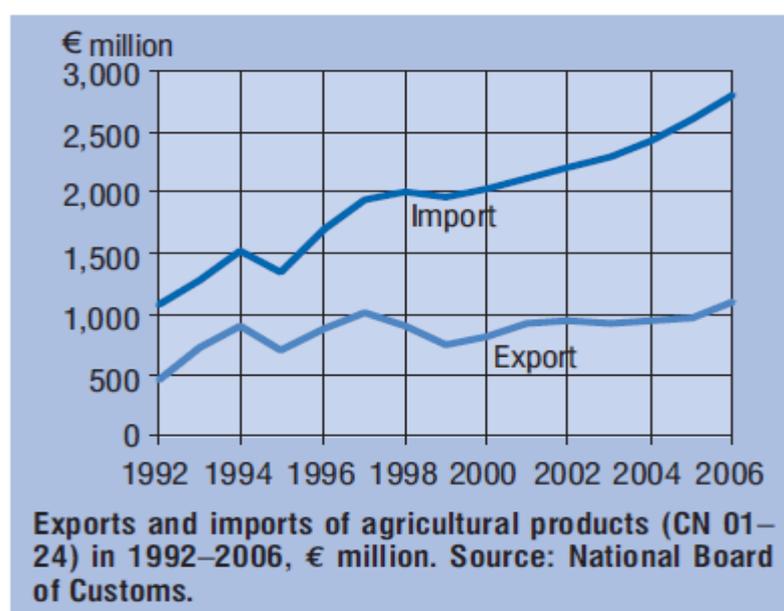
Once the world price levels of the agricultural production that has been analyzed above are considered, there is an increasing trend in the price of cereals produced in Finland such that the average price of cereals has increased by almost 10-% from 2005 to 2006 (Niemi and Ahlstedt, 2007, pp. 28-29). Within a year, the price of agricultural production of any kind of food has an increasing trend because of the fact that the demand of Finnish population is not satisfied with the actual production. Till the final season of every year, this unsatisfied demand has caused an increase in the average price level of the agricultural production. Indeed, the Finnish economy has been one of the most problematic economies of the EU with respect to the problem of unsatisfied demand and increase in price levels (Niemi and Ahlstedt, 2007, pp. 28-30).

The statistics reveal that, for instance, the price of barley in Finland has been the highest recently among the European countries, and the peak price has been experienced in the month of December. Furthermore, it is noticed that there is an increasing trend in the cereal prices starting from August, and they have reached the peak levels in the end of autumn (Niemi and Ahlstedt, 2007, p. 28). More seriously, the world price levels of the cereals and other agricultural production

has a trend of rise through time and within a given year. At the end of every year they have started to experience the highest levels of prices for the agricultural production due to the unsatisfied demand of the food requirements of the world population. As a result this has created higher imports for Finnish economy.

Furthermore, the price support policies followed by the Finnish government before the membership had resulted in an increase in the import of the agricultural products. Eventually, this has created problems for the trade balance of the member countries. Although, the rise in the competition due to the globalization and openness of the borders have resulted in an increase in the import of agricultural products and this has also resulted in a reduction on the price levels for the Finnish consumers, eventually, the issues on trade balance is assumed to influence the Finnish economy negatively.

Figure 4: Exports and Import of Agricultural Production of Finland, 1992-2006



Source: Niemi and Ahlstedt, 2007, p. 47.

The graph above summarizes the import-export of the agricultural sector of Finland through time including the period before and after the EU membership of Finland. Although there is an increasing trend in the export of foods market of Finland, the graph reveals that the increase in the import and also the total amount of import have been much higher than the ones of export. The share of the imports from the new member EU countries has also risen by 3-% within three years from 2003 to 2006 (Niemi and Ahlstedt, 2007, pp. 47-48). Among the new members, Poland has been the most important import-export partner of Finland. The share of the imports originated from Poland has increased by 1-%. The foods import from Estonia has also increased since Estonia has become a member of the Union (Niemi and Ahlstedt, 2007, p. 48).

Although the overall agricultural production of the Finnish economy has declined, the processed foods market of Finland has been highly developed. According to the statistics, the national foods production of Finnish economy accounts for more than five billion Euro. Once the income support to the agricultural industry is subtracted from the overall value of production, the net contribution of the agricultural production to the Finnish economy equals to more than three billion Euros (Niemi and Ahlstedt, 2007, p. 10). Besides this, the value of the imported foods and beverages accounts for approximately 0.5 billion Euros. According to 2005 statistics, the overall contribution of the agricultural production to the Finnish economy has been approximately equal to more than one billion Euros. Basically this value equals to 1-% of the total GDP of Finnish economy. However, as it is expected, the share of the agricultural production in the overall Finnish economy has continued to decline through time especially after the EU membership in 1995 (Niemi and Ahlstedt, 2007, p. 10).

On the other hand, the foods and beverages sector (basically include the processed foods and beverages excluding raw agricultural production) has been developed in Finland such that the foods industry accounts for 8-% of the overall Finnish economy and equals to more than two billion Euros. According to the value added to the overall economy, the foods market has created value-added amount equaled to more than two billion Euros (Niemi and Ahlstedt, 2007, p. 10). According to those statistics, the foods market has been the fifth industry in the ranking of industries based on the value-adding to Finnish economy.

Inside of the foods industry, the main sub-industries are meat-processing, baking, dairy products and beverages. As it is estimated, the foods and beverages industry is basically dependent on the raw materials of agricultural production. Although the food-processing industry is basically based on the local production of agriculture, approximately 10-% of the food-processing industry uses the imported agricultural production. Currently, the most of the foods industry of Finland is based on the domestic agricultural production but there is a trend that this industry of foods and beverages has been more and more depending on the imports of the agricultural production. Indeed, with the globalization and openness of the Finnish economy to international trade, the imports have increased and also the efficiency of the foods-processing industry has increased because the industry now is more able to receive the agricultural production cheaper, and this decreases the overall cost of feeding the whole Finnish population (Niemi and Ahlstedt, 2007, p.31). The current trend reveals that there is an expected increase in the imports of agricultural production but this also implies better efficiency and better cost-conditions for the foods-processing industry.

The Finnish agriculture sector has experienced radical and some negative changes, but there have been improvements in the sector as well. According to statistics, the food export of Finnish sector has increased so much that they have never experienced that much export before. The export of 2006 has increased by 14-%, but the import of 2006 has increased by more than 5-% (Niemi and Ahlstedt, 2007, pp. 47-48). However, as it is also explained above, the trade balance of the Finnish foods market has not improved yet, and the increase in imports has started to alter the trade accounts of Finnish economy negatively.

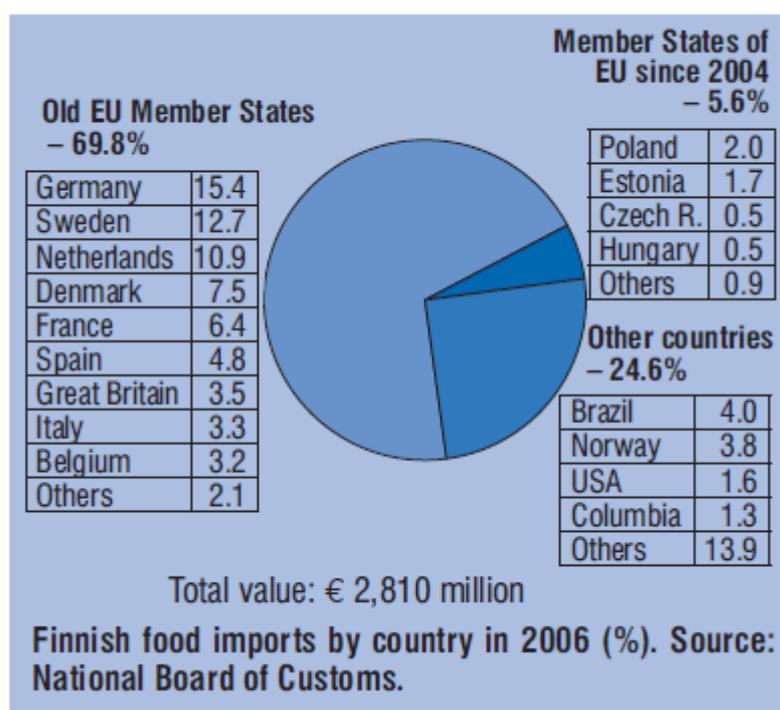
The results imply that the highest portion of the foods import of Finnish economy comes from the imports of fruits, vegetables, raw coffee and tobacco and beverages (Niemi and Ahlstedt, 2007, p. 47). Although the cereal production of Finnish economy has been tended to increase over time, there is still not enough production to feed for the all Finnish population. Therefore the cereals import has been a large portion of the overall import of the agricultural products in Finland.

Once the origin of the imported agriculture products to Finland has been analyzed, the statistics reveal that, as it is expected, the most of the imported foods come from the other EU member countries. Those European countries are basically Germany, Netherlands and Sweden. Although the most of the imported foods to Finland has come from the initial member countries of the Union such as Germany, the share of the imports from the new members has been increasing as well, however this has not resulted in any significant changes in the import structure of Finland (Niemi and Ahlstedt, 2007, pp. 47-48). The agricultural import from old EU members still constitutes the biggest portion of the agricultural imports of Finnish economy. The statistics have revealed that the import from the European countries have been increased from almost 60 million to 150 million Euros within three years from 2003 to 2006 (Niemi and Ahlstedt, 2007, p. 48). This implies that the openness of the Finnish agricultural sector and foods sector to international trade and also being a part of the common European market have all influenced the trade balance and foreign trade indicators of Finnish economy.

Although the openness of Finland to the European market and global market has made Finland economy a potential exporting market for the member countries, the enlargement of the Union has also created new opportunities for the Finnish food market. For instance, the export of Finland economy and agricultural sector has increased. The amount of the exports of Finnish food sector to the new EU member countries has increased from almost 100 million to 180 million Euros within three years from 2003 to 2006 (Niemi and Ahlstedt, 2007, p. 48). More importantly, once only the trade between Finland and the new member countries is considered with respect to the foods sector, the results show that there has been more than 20 million valued trade surplus on the behalf of Finnish economy (Niemi and Ahlstedt, 2007, p. 48). Within the same period, the share of

the exports to the new EU member countries (especially Estonia and Poland) within the overall exports of the Finnish food sector has increased by 5-%. Another important trade partner of Finland foods sector has been Russia outside of the Union. More than 20-% of the Finnish foods sector export has taken place to the foods market of Russia. The second important country that Finnish foods sector exports has been Sweden with more than 15-% of the overall exports of foods sector.

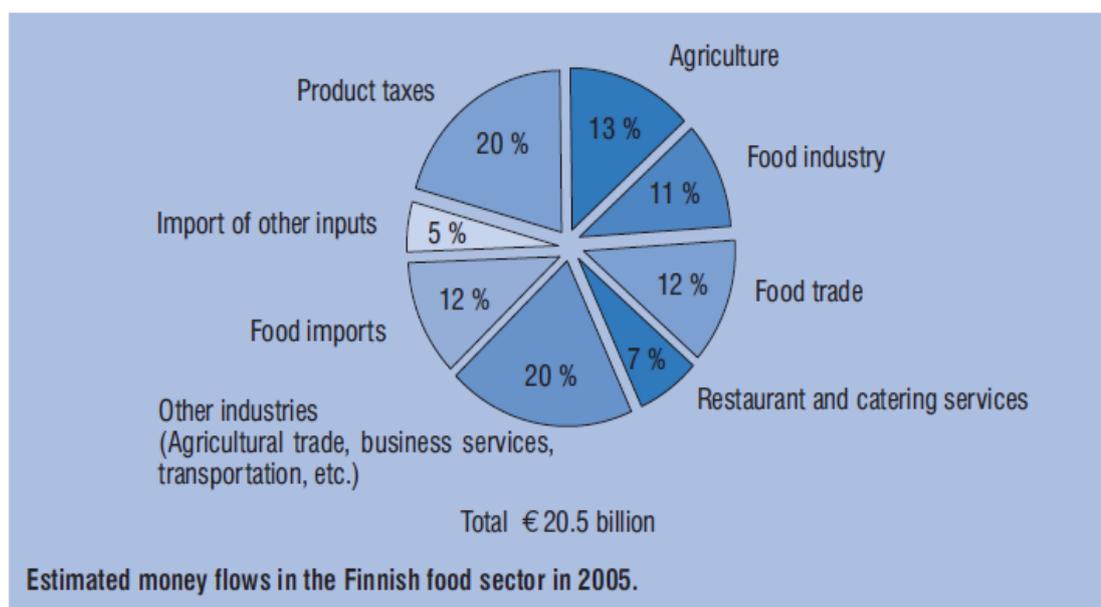
Figure 5: Finnish Food Imports by Country in 2006



Source: National Board of Customs in Niemi and Ahlstedt, 2007, p. 48.

Figure 5 above represents the countries that have imported the agricultural products to the Finland foods sector. As it can be seen from the statistics, the biggest portion of the imports to the Finnish food sector has been originated from the EU member countries but especially from the initial and old members of the Union. Although the imports from the new member states has an increasing trend, the imports come from the non-member countries such as Brazil, Norway, the US and Columbia. Those countries could be regarded as having a more different climate and environmental conditions than the ones that Finland has. Therefore, the exotic fruits and vegetables generally come from those non-member countries (Niemi and Ahlstedt, 2007, p. 48).

Figure 6: Estimated Money Flows in the Finnish Food Sector in 2005



Source: Niemi and Ahlstedt, 2007, p. 11.

The figure 6 above summarizes the money flows (inflow or outflow) resulting from the corresponding activity of the foods-processing industry of Finnish economy for the period of 2005. The overall imports of the inputs used by foods sector (i.e. agricultural products, fuels, the chemicals and technology used by the foods-processing sector) account for more than 15-% of the overall industry money flow. Moreover, the results reveal that the food trade of Finnish economy is also higher than expected (Niemi and Ahlstedt, 2007, p. 11). This is basically due to the membership to the EU and openness of the economy to international trade.

With respect to the demands of the Finnish food market, the overall expenditure of Finnish population on the foods market have been equal to more than 15 billion Euro, on average, and this has accounted for approximately 10-% of GDP of the Finnish economy. However, the overall income per capita has increased much more than the increase in the consumption of the foods and beverages, therefore according to the statistics, foods and beverages have approximately accounted for more than 20-% of the income of average consumer in Finland. Finnish population has been less financially influenced from the changes in the agricultural market in Finland such as increase in price levels and imports and also decreases in the agricultural production (Niemi and Ahlstedt, 2007, pp. 10-12).

More seriously, the imports of not only the agricultural products but also the imports of other inputs used by the foods sector of Finland have altered the condition of this sector. Additionally they have altered the trade balance position of the sector and the economy even further. With

respect to the statistics for the following period of 2000s, the results reveal that the imports to the foods sector of Finland basically actualize due to the impossibility of the production of the corresponding agricultural product in Finland. This has been one of the main consequences of the features of climate in Finland. More importantly, the statistics reveal that there is an increase in the export and import of the same kind of agricultural or livestock products such as cheese, beverage. According to the export statistics, Finland generally exports the low value added processed foods and beverages and/or the raw version of the agricultural products that are basically specific to the soil of Finland and regarded as exotic (Niemi and Ahlstedt, 2007, pp. 12-13, 47-48).

The current developments and the expectations about the future of Finnish economy summarize that the import-supported foods market has been more influential on the Finnish economy. In other words, Finland is becoming an importer of the raw agricultural food but exporter of the processed foods. This would also imply that the agricultural production and resources used for agriculture will have more decreased in the following years (Niemi and Ahlstedt, 2007, p. 54). However, the portion of the foods-processing industry in the overall economy is expected to increase at the same time. As a result, the Finnish foods-processing industry has been more demanding and more dependent upon the imports of fresh fruits and vegetables production (Niemi and Ahlstedt, 2007, pp. 54-55).

To sum up, once it is assumed that Europe shares a more common climate and environmental conditions. The imports coming from the member countries to Finland could be resulted from the fact that those member countries produce at better prices, with higher quality and at larger volumes. In this respect, the common European market provides the agricultural products for the foods market of Finland at better prices and assists the country to satisfy the demand of Finnish population and also the country could spend their scarce resources for more productive industries. In this regard, the export to the Finnish foods market requires providing more exotic agricultural products, fruits and vegetables for a non-member country. This is because the member countries of the Union already provide better price options for the member countries. Moreover, the European common market features remove the trade barriers such as quotas and tariffs among the member countries.

2.5 Expectations about the Future of Agriculture and Foods Sectors in Finland

The current picture of the Finnish agricultural and food market reveals that there is a sure need for importing basic food stuffs. With respect to the possible future of the agricultural and food

markets of Finland, Rikkonen (2005b, pp. 26-29) have worked on the Delphi analysis and estimated the possible results of the all probable future outcomes. They have concluded that there are five possible outcomes for the future of the agricultural sector in Finland.

According to the results of the Delphi study carried out by Rikkonen (2005b, pp. 36-42), it is estimated that the all regions of Finland experience a decrease in the regions suitable for agriculture. On the other hand, the degree of the reduction is estimated to be different for different regions in that the eastern and northern regions of Finland would lose the half their agriculture-suitable regions with the other regions experiencing a more slight reduction in the number of those regions. It is estimated that the number of farms in Finland will have been decreased by almost 50-% by the middle of the 2010s Rikkonen (2005b, pp. 40-45).

More importantly, all those effects of globalization, trade liberalization, the EU and technical developments have constituted the basis for the transformation process and resulted in improvements on the agricultural production and productivity of Finland. At the same time, they have resulted in the higher level of uncertainty in the future of Finnish agricultural sector.

During this transformation process, it is expected that the economies that are still heavily based on the agricultural production could support the foods and beverages needs and requirements of Finnish population. In this regard, this thesis has focused on the capabilities of the agricultural production of Turkey and how well they could satisfy the needs of the Finnish population with regard to nutrition. Moreover, the Finnish agricultural production is not only used for the final consumption but as raw materials for the foods and beverages processing industry in order to create value for the Finnish economy. According to the above statistics, the foods-processing sector of Finland could substantially contribute to the Finnish economy (Niemi and Ahlstedt, 2007, pp. 10-13, 17). Therefore, the import volume of agricultural products in Finland economy is expected to increase in the future because of both consumption and industrial requirements. Due to the low prices of Turkey, even lower than those in the EU, the Turkish agricultural sector could support the nutrition of the Finnish population and also support the needs of the raw agriculture production of Finland for the food processing sector. In the following parts of this thesis, the agriculture sector and product variety of Turkey will be analyzed within the limits and economic and political conditions set up the EU and Turkey relations.

3 AGRICULTURE IN TURKEY

Since the last century, the average size of the Turkish agricultural producers has not been enough to create economies of scope and economies of scale (Ozguven et al., 2010, p. 91-92). As a

consequence, the efficiency of the agricultural production in Turkey has never reached to the targeted levels. In addition to those, the agricultural lands have been much more multi-partite; the rural population is not well-educated and unaware of the technological developments in the agricultural production techniques (Ozguven et al., 2010, p. 89, 91). More importantly, the population of Turkey has increased much with a larger share of the young population. Those entire structural issues specific to the Turkish agricultural sector have eventually resulted in the emergence of an inefficient market of agriculture.

Ozguven et al. (2010, p. 89, 93) have suggested that the efficiency improvement in the Turkish market of agricultural production could be only possible by implementing the inputs (fertilizers, pesticide and grains) compatible with each other. And the mechanization of the agricultural production has been the main tool of implementing these inputs properly. In this regard, the mechanization of the agricultural production implies the usage and implementation of machinery and energy during production (Ozguven et al., 2010, p. 89). Owing to the mechanization, faster and larger volume of agricultural production could be realized. However, the mechanization of agricultural production is much different than the mechanization of any other manufacturing industry (Ozguven et al., 2010, p. 93-94). Therefore, in the agricultural production, the mechanization affects the productivity and efficiency indirectly and mechanization assists the rural population in their adoption of new production techniques. This way, the mechanization of agricultural industry also improves the efficiency and economy of other technological applications in the industry which in turn improves the working conditions for the rural population.

Therefore, the mechanization has radically changed the agricultural production in that although the arable lands in the whole world have declined in size, the agricultural production has increased owing to the technological improvements in and the mechanization of the agricultural sector. Unfortunately, the Turkish agricultural sector has started to implement the technological possibilities and applications much later than the European countries (Ozguven et al., 2010, pp. 93-95). More importantly, the structural issues of the Turkish agricultural sector have also kept the industry as efficient and productive as its European counterparts. However, it is stated that, through time, the mechanization of the agricultural production in Turkey has substantially improved implying that the number of Turkish producers that satisfy the standards and regulations set by the EU has started to increase as well.

Once the rural population and rural production of Turkey have been considered, before 1980s and 1990s, the Turkish agricultural production has been heavily decreased and Turkish producers would not be able to compete with the global producers. However, after 1990s, this situation has been rectified in that the farmers and rural population have tried to solve the issue about the

limited size of the arable lands, choosing the right fruits and vegetables for production and the issues regarding the labor force needed for agricultural production. Çakmak and Akder (2005, pp. 2-4) have concluded that in the last 20 years, the Turkish agricultural sector has improved much with respect to the amount and size of the arable land including quality and usage of those arable lands as well.

They have also stated that while the size of the arable lands that have been watered increased, the areas used for the production and harvesting of fruits and vegetables have increased. The Turkish farmers have tried to adopt the production of the fruits and vegetables that have a higher level of value added as the arable lands have decreased and the labor force needed also decreased through time (Çakmak and Akder, 2005, pp. 3-5). In other words, the small and medium sized farms have dealt with the problems inherited in the Turkish agricultural sector by preferring to harvest the fruits and vegetables with a higher value addition. In this regard, the small and medium sized Turkish farms in particular have focused on the production of more exotic fruits and vegetables that are much more expensive in the global marketplace. Also, the larger size farms have both focused on the harvesting of exotic fruits and vegetable but also highly demanded basic nutrition sources such as onions, potatoes and tomatoes (Çakmak and Akder, 2005, pp. 3-5).

However, the share of the agriculture of the Gross National Product (GNP) has been falling year by year. For instance, the share of the agriculture within GNP was 35-% in the year of 1970. The share of agriculture came down to 17.5-% and the share of the manufacturing industry rose to the level of 26-% in the year of 1992 (Yiğit, 1999, p. 123). In that period, the increase in the production of field vegetables had been over 20-%, but the productivity increase in those was just equal to 1-%. In the same way, the number of tractors used increased by 5.6-%, the fertilizer used increased by 2.8-%, and the credit provided for the farm-owners increased by 1.8-%. 82-% of the incentives were provided for the enterprises of agriculture (Yiğit, 1999, p. 123). Animal husbandry was used for the usage and purchase of the fertilizers but the statistics reveal that this was not actually used for the fertilizer purchase or for any other productivity related issue. Indeed, the incentives provided were not used for the aim of improving the productivity and production in the agriculture market (Gürbüz, 1991, p. 9).

The results reveal that the 70-% of the credits provided for the agricultural production and industry was used in the areas outside of the agriculture itself (Yiğit, 1999, p. 123). In other words, the Turkish agricultural sector has been highly under-developed in the periods before the 1990s. Therefore, the credits specific for the farmers and agricultural producers had been used for non-agriculture based reasons such as the individual loans of the farmers. The farmers could not be

financially supported. And eventually the Turkish governments had halted financial assistance to the agricultural sector and the sector had started to decline. The size of the rural population had declined because the agricultural production was not even enough to satisfy their own nutrition needs. Therefore, they had moved to the urban regions of Turkey. Thus the labor force needed for the agricultural sector had also decreased in size (Karpat, 1976, pp. 1-10).

In this regard, Turkish governments generally have followed more protective attitudes to the local agricultural sector, and therefore the exports to the EU have stayed at much lower levels although the production of fruits and vegetables has been substantially high (Çakmak and Akder, 2005, pp. 3-6). In other words, Turkey could have improved its exports of fruits and vegetables to the EU, but the protective attitude to the national agricultural market had prevented the industry from becoming more competitive. In this regard, up to the 21st century, the Turkish producers would not be able to compete with the global producers about entering into the common market of the EU at the targeted levels. However, starting from the 1990s, proper support has been given by the governments. First of all, the specific credits are provided only for the usage of the agricultural production such as the purchase of the technical equipment. The land reforms have been initiated as well in order to improve the productivity (Yiğit, 1999, pp. 120-124).

On the other hand, rather than following a protective policy for the agricultural sector, the consolidation of the small and medium sized farms could develop the economies of scale regarding the fruit and vegetables production of Turkey (Akbay et al., 2005, pp. 102-104). More importantly, the consolidation of the agricultural production under a few large farms could make the standardization much easier because the control of the standards is not satisfactory or could be much easier and less costly. In other words, as the consolidation of the Turkish agricultural sector increases and the producers become more focused on the value added and being competitive in the global market, then Turkey could substantially increase its export of fruits and vegetables and other agricultural products for the EU common market and also the global marketplace.

3.1 Geographical Aspects of Agriculture Sector of Turkey

The geographical location and the overall climate conditions generally support the agricultural production of Turkey. Indeed, up to 1980s Turkey has been considered mainly a country of agriculture. According to the report of the Republic of Turkey Ministry of Economy (2012, p. 1), the agricultural productivity and also the product variety of Turkey has an increasing trend

through time since 1900s. Before, the agriculture had constructed the main source of income of Turkey but especially after the foundation of Republic, the country has been more focused on the industries of manufacturing (Kurt and Terzi, 2010, pp. 26-27). In this regard, the agricultural population and the agricultural production have been ignored during the last century.

Turkey, owing to its unique geographical position, has a climate that is available for the production of the all kinds of fruits except the tropical garden fruits (Gül and Akpınar, 2006, p. 15-17). In this respect, Turkey is regarded as the motherland of the many fruit types that could be produced in the whole world and as the origin of the culture of garden plants (Ağaoğlu et al, 1997, p. 15). The large share of the fruits produced in Turkey consists of the fruits of warm climate such as grapes, apples, hazelnuts, peaches, apricots, cherries, chestnuts and pistachios.

Once the location of Turkey has been considered, Turkey is both close to Europe and also Middle East, Russia and neighboring countries. In this regard, Turkey has many partners for export of the agricultural production. More importantly, the North and East African countries have become the countries that Turkey has started to export owing to the political closeness between Turkey and those countries (Ozkan, 2008, pp. 1-2). In other words, the location of Turkey provides Turkey much easiness about the agricultural production. First of all, the country's geography is highly varied implying that the country experiences Black Sea climate, Mediterranean climate and others. As a result, this helps the country to be able to produce agricultural production in high varieties ranging from tea, hazelnut to orange, olive and some other exotic fruits and vegetables that are specific to Mediterranean regions (Republic of Turkey Ministry of Economy, 2012, pp.1-5).

Moreover, the geographic location of Turkey makes the country close to the EU, Africa and Middle East, Russia. In other words, the country is in the middle of three continents, this has also contributed into the agricultural development of the country. As Turkey does not have any problem in finding any place to realize export of the agricultural production. Therefore, the agricultural production has been one of the main sources of income of country such that only exports of the agricultural production value of Turkey had been equal to almost seven million dollars in 2008 out of total 132 million dollars of total export (Republic of Turkey Ministry of Economy, 2012, p. 1). Although the agricultural production of Turkey does still contribute to the Turkish economy, indeed the share of the agricultural production in the total exporting has been declined from 60-% to 8-% levels since the 1980s (Harrison et al., 2003, pp. 193-196).

This is mainly owing to the fact that Turkey has been becoming a country of industrial production rather than agriculture although Turkey has the substructure and the geographical conditions that support the agricultural production. Although there is a sure decline in the rural population and

also agricultural production of Turkey, the country is still the leading exporter of some specific agricultural products in the World marketplace such as hazelnuts, dried apricots, sultanas and others (Ex Republic of Turkey Ministry of Economy, 2012, p. 1).

Furthermore, the geographical and climate based variety experienced in Turkey has made the country available for the production of many kinds of vegetables and fruits such as orange, strawberry, cherry, figs, grapes, onions, potatoes, leeks and many others (the Appendix). From 1950s to 1980s, the agricultural production had been highly ignored in the country in order to support industrial production and urbanization, although some populist politics had supported the rural population in the same period (Gürçağlar, 2008, pp. 179-182). However, starting from 1980s and 1990s, the rural population has been supported financially through the export credits and others in order to support the export of agricultural production. Today, the technical development has been highly used in the production of vegetables and fruits for the nutrition of the national market and also world market (Aktan, 1957, pp 273-274).

This reveals that Turkey is geographically superior to many world countries with respect to the agricultural production and about finding export countries, but Turkey can only take advantage of this geographical advantage as long as they invest and care about the agricultural production and the development of the rural population. However, Turkey has not been much able to take advantage of their location based features properly. Today, the country has been more focused on the agricultural production of exotic fruits, vegetables such as kiwis, kiwanos, pineapples, avocados, tamarillos and many others (Akkaya and Ozkan, 1998, p. 83) which could be produced under the climate of Turkey. According to the statistics, Turkey is now able to export also many raw fruits and vegetables and also processed versions of those, and sugar, chocolate, cocoa, tobacco as well (Republic of Turkey Ministry of Economy, 2012, pp. 1-5). In short, Turkey could be considered highly advantageous with respect to the agricultural production variety and also finding export markets in the international marketplace due to its geographical position close to Asia, Europe and Africa continents.

3.2 Production

According to the statistics of 1993, the 27.5 million hectares of the total of the arable lands of Turkey had been used for the production of vegetables, and 1.6 million hectares of those areas were assigned for the production of fruits (Akbay et al., 2005, p. 97). According to the historical

statistics for the period of 1990 to 2000s provided by Akbay et al. (2005), the total size of the arable areas had declined but the area assigned for the vegetables was increased as well. However, the area assigned for the fruits production has decreased. According to the statistics of 2000, total arable lands had accounted for 26.4 million hectares; 793 thousands of those total arable lands were assigned to the vegetables and 1.4 million assigned for the fruits production (Akbay et al., 2005, p. 97). The market value of the fruits and vegetable of Turkish agricultural industry for the year of 2000 was equal to more than 6 billion TL and this accounted for the 40-% of the overall agricultural production and 58-% of the total vegetables and fruits production (Anonim, 2000, p. 97). In 2000, the overall agricultural production had been realized as 99.9 million tons in volume. 22-% of those production amount resulted from the vegetables production and 14-% of those resulted from the fruits production (Anonim, 2000, p. 97).

Although the overall fruits and vegetables production of Turkey has been realized not for the local production but for the commercial reasons, only a few of the fruits and vegetables categories generate economic value for the Turkish economy. According to the 2000 production levels, tomatoes had been the vegetable with the highest level of production (Akbay et al., 2005, p. 100). It is stated that 40-% of the overall agricultural production had been for the tomatoes production. Tomatoes had been the most substantially produced vegetables by Turkish farmers. Then the second mostly produced vegetable had been cucumbers with 8-% and other vegetables such as peppers, eggplants, beans, dry onions had been heavily harvested (Akbay et al., 2005, p. 100). With respect to the vegetables, the grapes had been the fruit with the highest ratio of production, 25-%. The production of citrus fruits, apricots had been also constituted the highest portion of the fruits production (Akbay et al., 2005, p. 100).

With the assistance of the developments in the agricultural production technologies, and the usage of the modern production inputs, the productivity in the fruits increased although the arable lands assigned for the fruits harvesting had declined (Akbay et al., 2005, p. 97). As it is also specified above, for the period of 1990-2000 the arable lands assigned for the fruits had decreased by 10-%, but the production of fruits increased by 32-% (Akbay et al., 2005, p. 97). With respect to the productivity, the vegetables of cucumbers, peppers and tomatoes and fruits of apricots, mandarin and oranges had experienced the highest level of increase in productivity in Turkey. Moreover, the arable lands assigned to the vegetables had increased and also the productivity for the vegetables had increased as well (Akbay et al., 2005, p. 97).

As also statistics reveal that there is an increase in the productivity of the vegetables and fruits production of Turkish agricultural market, the consumption of the national market has started to decline in the same period (Akbay et al., 2005, p. 97). According to the statistics of Anonim

(2003, p. 99) the consumption of fruits and vegetables has accounted for the 20-% of the overall food consumption of Turkish population. For the year of 1970, the annual consumption of vegetables per capita has been 166.88 kg and annual consumption of fruits per capita has been 141.28 kg (Akbay et al., 2005, p. 99). From 1970s to 21st century, the consumption habits of the population have changed such that in 30 years, the vegetable consumption of the population has increased by 37.5-%, but there has been an increase in the consumption of fruits by 28.6- % (Akbay et al., 2005, p. 99). In 2001, the amount of vegetables consumption per capita has been 228.88 kg, but consumption of fruits per capita has been 101.36 kg (Akbay et al., 2005, p. 99). The statistics reveal that there has been especially a huge decline in the consumption of the grapes by more than 70-%. The main reason of this fact has been originated from the increase in the price levels of the fruits especially. Especially with the economic crisis of 1994, the prices of fruits and vegetables have increased substantially.

There is also a cultural reason for this fact such that the vegetables are regarded as the basic nutrition by the Turkish population (Akbay et al., 2005, p. 99). Therefore, they have continued to consume vegetables as the prices have increased as well. However, the fruits have never been regarded as basic nutrition by the population. Therefore the increasing prices of the agricultural production have negatively influenced the consumption of fruits by Turkish population.

Table 3: Fresh Fruits and Vegetables Production in Turkey (in 1000 tons)

PRODUCTS	2010	2011	Annual Change %	Share (2011) (%)
Tomatoes	10,052	11,003	9,5	24,6
Watermelons&melons	5,294	5,512	4,1	12,3
Grapes	4,255	4,296	1,0	9,6
Apples	2,600	2,680	3,1	6,0
Onions, dry	1,900	2,141	12,7	4,8
Peppers	1,986	1,975	-0,6	4,4
Cucumbers & Gherkins	1,739	1,749	0,6	3,9
Oranges	1,710	1,730	1,2	3,9
Tangerines	859	872	1,5	2,0
Eggplants	847	822	-3,0	1,8
Lemons	787	790	0,4	1,8
Apricots	450	650	44,4	1,5
Carrots	533	602	12,9	1,3
Peaches	539	546	1,3	1,2
Cherries	418	439	5,0	1,0
Pears	380	386	1,6	0,9
Figs	254	261	2,8	0,6
Grapefruits	213	219	2,8	0,5
Pomegranates	209	218	4,3	0,5
Total	42,460	44,705	5,3	100,0

Source: Republic of Turkey Ministry of Economy, 2012, pp. 1

Table 3 above summarizes the recent production of the fresh fruits and the vegetables of Turkish agricultural industry and the recent changes in the production amount of each product. According to the results, there is a certain increase in the production amount of each agricultural product except eggplants and peppers. More importantly, the statistics reveal that the most of the vegetables and the fruit production of Turkish agricultural industry relied on the more production of more traditional product groups such as tomatoes, watermelons, grapes and apples. The production of more exotic fruits and vegetables such as grapefruits, pomegranates and others is still much lower than the other products of agriculture. The Republic of Turkey Ministry of Economy Report (2012) also declares that the Turkish agricultural industry is able to produce the vegetables and fruits specified above not only in their specific seasons but also anytime during the year owing to the greenhouses available in Turkey. Moreover, it is stated that there are other many exotic fruits and vegetables that could be produced in Turkey again owing to the developments in the agricultural production methods such as greenhouses. However, the basic fruit and vegetables production of Turkey, as specified above, has focused on the tomatoes, melons and others.

The organic production requires the production of vegetables and fruits without any chemical ingredients such as pesticides (Morgan and Murdoch, 2000, p. 160). And also it requires that production should take place under the natural production conditions without any intervention through the chemicals. With respect to organic production, the geographical location and climate and also the quality of Turkish soils provide the best basis for organic production (Güler, 2012, p. 240). This provides competitive advantage to Turkey over its rivals about the quality of the organic production of fruits and vegetables. More importantly, the world is becoming more and more a one global marketplace as time passes. In other words, customer trends are also becoming more global implying that the more and more the globe also becomes environmentally and socially oriented (Straughan and Roberts, 1999, p. 559). Environmental orientation has made most of the world population more concerned about the quality and nature of the agricultural production and the foods they consume. It is stated that today, customers prefer to consume more natural fruits and vegetables that do not include any chemicals, and also they require the producers to use less chemical in order to protect the natural habitat. Therefore, organic production has become one of the important trends in the exporting of agricultural production.

With respect to the organic agricultural production, as specified above, Turkey is one of the few economies that are rich in terms of natural production of agriculture. This has also increased the exports and also global demand for the organic production of Turkish agricultural sector (Rehber and Turhan, 2002, 373). The Turkish Statistics Institute (2012) has also declared that Turkey has recently exported a large amount of organic production of agriculture industry. In this regard, the Turkish producers of organic products have also gained the legislative requirements through the documentations of ISO 9001, ISO 22000, HACCP, GAP and THE GLOBALGAP. It is stated that those documentations also provide export easiness to the Turkish producers about the export of organic agricultural products because especially the EU countries are more concerned about the quality, environmental friendliness of the production techniques and also the safety regarding organic products.

3.3 Export

According to the study of Türkay (1988, p. 101), Turkey is able to produce 80 out of 150 types of vegetables and fruits that is the total number of available agricultural products in the world. More importantly, Turkey is able to export all those 80 kinds of different fruits and vegetables in the global marketplace. According to the statistics of 2000, the total export value of agricultural production of Turkey has accounted for 2.0 billion dollars, and the import value has accounted for

2.1 billion dollars (Akbay et al., 2005, p. 101). They have also concluded the share of the fruits and vegetables within the overall export of agriculture has been more than 18-% but within the overall import has been less than 3-%. More importantly, starting from the 21st century, Turkey has been able to increase the share of its fruits and vegetables export share in the overall export levels to more than 20-% and decreased the import share to 1.5-2-% (Akbay et al., 2005, pp. 101-102).

More importantly, in the year of 2000, the overall production of the fruits and vegetables in Turkey accounted for 41.9 million tons and only 2.5-% of those total productions were subject to export to the global marketplace (Akbay et al., 2005, p. 102). The rest of the production was used and consumed by the local producers and sold to the local markets. The problem regarding to this very low levels of exporting within the overall production has resulted from the inability of the Turkish producers to market their production in the global marketplace. Besides this, the most of the production has not satisfied the internationally set standards (Akbay et al., 2005, p. 102). But the main issue has been the lack of the marketing abilities of the Turkish producers who have generally preferred to sell in the local and national marketplace rather than creating value added by marketing to the global markets. In this regard, Akbay et al. (2005, pp. 102-103) have recommended that the vegetables and fruits producers of Turkish economy should form an association in order to support the standards in the production of vegetables and fruits. Moreover, the small and medium sized farms should be supported about the production of specific fruits and vegetables that the EU countries mostly prefer to import and consume. However, the newly developed standardization system of the EU has even made the export of Turkey to the EU common market more limited (Akbay et al., 2005, pp. 102-103). The main standardization system that EU accepts includes the documentation of HACCP and EUREPGAP (Akbay et al., 2005, p. 103). In this regard, dealing with the standardization issues require the Turkish agricultural market to be more organized and to behave according to those standards.

Table 4: Exports of Fresh Fruits and Vegetables of Turkey for the period of 2009-2011
(Quantity in terms of million tons and value in terms of million US dollars)

Products	2009		2010		2011		Share 2011 (%)
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
TOMATOES	542,231	406,412	574,279	476,867	576,543	432,462	0,4
LEMONS	407,007	277,666	426,713	312,931	487,035	354,334	14,1
MANDARINS	364,228	253,369	429,401	290,722	470,882	337,995	9,7
ORANGES	236,596	146,995	212,832	143,474	360,912	258,654	69,6
GRAPES	188,486	155,623	237,86	203,925	239,577	175,325	0,7
CHERRIES	51,089	132,939	65,294	147,828	46,477	131,001	-28,8
GRAPEFRUITS	136,544	88,282	156,692	101,942	158,055	109,914	0,9
PEPPERS	64,767	61,01	61,247	69,366	68,569	77,544	12
POMEGRANATES	41,087	39,381	63,148	59,6	86,148	70,624	36,4
CUCUMBERS	95,17	66,482	105,06	75,463	80,991	59,176	-22,9
APPLES	59,945	22,862	80,698	32,865	87,238	36,591	8,1
FIGS	12,941	25,989	13,615	26,749	13,547	29,291	-0,5
APRICOTS	18,428	20,586	25,845	26,641	28,488	28,936	10,2
ONIONS	135,521	16,608	95,769	16,115	119,799	21,393	25,1
PEACHES	32,279	23,906	41,392	28,852	32,857	21,668	-20,6
STRAWBERRIES	23,2	25,26	25,867	28,101	21,103	20,441	-18,4
POTATOES	68,768	5,772	84,962	9,727	100,483	17,374	18,3
PEARS AND QUINCES	22,641	16,512	24,619	17,111	18,027	13,01	-26,8
CARROTS	56,256	9,954	56,374	10,284	64,711	11,938	14,8
TOTAL	2 692,338	1,872,211	2,897,050	2,156,585	3,195,190	2,301,617	10,3

Source: Republic of Turkey Ministry of Economy, 2012, p.4

Table 4 above summarizes the overall export of the Turkish agricultural production for every food category for the period of 2009-2011. The results reveal that although the production of the exotic fruits and vegetables is much less than the production of more specific and traditional production of agriculture, the export of the exotic product of grapefruits is more or less same as the export of onions. More importantly, although the export volumes of onions and grapefruits are the same for both products, the monetary values of the exports of those products are not the same. Indeed, the export of grapefruits is regarded as more profitable than the export of onions. In this regard, it is concluded that the product type also influences the export value besides the production volume and also quality of the product. In other words, once Turkish agricultural sector is more focused on the more exotic products of fruits and vegetables then they will be more profitable in their export activities as well and they will be able to export to more markets.

Table 4 above also reveals that there is an overall increase in the export value of the agricultural products of Turkish economy thanks to export of fresh fruits and vegetables exporting. Among those fresh fruits and vegetables that are producible in Turkish economy, the citrus fruits are exported at the highest levels. In this regard, the citrus fruits production of Turkey is more preferred in the global marketplace. Among the citrus fruits, the lemon export generates the

highest level of the export revenue for the economy. Outside of the citrus fruits, the export of tomatoes also is at high volumes and generates higher level of return.

Since 1980s the European countries and firms have started to increase their demand for processed organic fruits and vegetables (Ataseven and Gunes, 2008, pp. 25-26). Therefore, Turkey has started to increase their investments in the organic food market recently. In 2006, statistics reveal that Turkey has generated a value of more than 100 thousand tons of processed organic agricultural production and more importantly, 66 thousand tons of this production has been consumed in the national market (Ataseven and Gunes, 2008, pp. 25-26). And the rest, almost 34 thousand tons of processed organic fruits and vegetables have been exported. In other words, the raw production of the fruits and vegetables and their export have not reached to the targeted levels yet, but the processed organic market for fruits and vegetables has increased substantially in Turkey. Most of the production is used for the creation of a value added and reputable market image for the agricultural production of Turkey. However, the recent trends reveal that the increase in the local demand for the processed organic fruits and vegetables have decreased the export of those products (Ataseven and Gunes, 2008, pp. 25-26).

In this regard, the results summarize that, whether it is raw fruits and vegetables market or the processed organic market, the Turkish producers prefer the national market to the global marketplace and exporting. This is basically owing to the fact that the Turkish producers do not much care about the value added activities in the global marketplace. The costs of marketing, the costs associated to the distribution of the productions in the global marketplace could increase the overall costs of the Turkish producers, and eventually the return may not change much. However, as long as there is national demand in the market, the local producers prefer to serve for the national market where the transportation and other costs are less. This is also resulting from the fact that serving to the global market requires satisfying international standards, marketing, transportation and many other issues. All of those global market related issues require the local producer to increase the expenses. However, most of the local producers are small or medium in size. Therefore, those small and medium sized enterprises cannot take the advantage of the economies of scale, and they do not prefer to serve for the common markets at all. In this regard, the consolidation of the Turkish agricultural market is needed in order to make the market more competitive in the global marketplace.

3.3.1 Turkish Exports of Fruits and Vegetables

Turkey has been one of the few countries that can produce some specific fruits and vegetables (BUGEM, 2012, p. 1). Table 5 below reveals that indeed Turkey is the sole producer of some specific agricultural products owing to its unique climate and soil properties and geographical location. For many fruits and vegetables ranging from hazelnuts to apricots, Turkey is the main supplier of those products to world markets (BUGEM, 2012, pp. 1-2).

Table 5: The Rank of Turkey in the Overall World Market by Product for the period of 2011

Rank in the World	Product	Total Production in World (tons)	Total Production in Turkey (tons)	Share of Turkey in the Overall Production
1	Hazelnut	648.000***	430.000	66,3
	Sour Cherry	1.117.915	194.989	17,44
	Cherry	2.130.851	417.905	19,61
	Opium Poppy	96.333	34.194	35,5
	Figs	1.058.734	254.838	24,07
2	Apricot	3.442.450	450.000	13,01
	Lentil	3.595.177	325.952	9,07
	Honey	1.089.659	81.364	7,47
	Melon	25.014.494	1.647.988	6,4
3	Water Melon	89.153.514	3.683.103	4,1
	Pea	9.774.082	488.477	4,99
	Pistachio	912.179	128.000	14,03
	Chestnut	1.958.547	59.171	3,02
	Apple	69.567.526	2.600.000	3,73
	Cucumber	57.556.880	1.749.174	3,1
	Beans	19.603.118	614.948	3,5
4	Peppers	27.915.038	1.975.269	7,1
	Mandarin	21.317.592	858.699	4,00
	Tomatoes	145.652.579	11.003.433	6,9
	Walnuts	2.545.388	178.142	7,00
5	Leeks	18.088.363	221.632	1,0
	Eggplants	41.829.973	821.770	2,0
	Sugar beets	229.490.296	16.126.489	7,03
	Olives	20.632.686	1.415.000	6,85

Source: BUGEM (Head Department of the Vegetable Production) Activities Report, May 2012, p. 4.

These results reveal that Turkey basically exports the fruits and vegetables that it has produced in large volumes and it is the main and sole provider of some of the products. However, Turkey could even improve its export levels by improving its image in the world market (BUGEM, 2012, pp. 4-5).

Furthermore, the overall export of the Turkish agricultural production for the whole world and also for the EU countries has stayed at low levels, although the national production of Turkey has been much higher. In other words, the ratio of the exports of fruits and vegetables in the overall national production has stayed low. Most of the studies have concluded that the main reason for this has been the trade-blocks that have been set by the EU. Also, Turkey has been subject to the competition the other Mediterranean countries and member countries of the EU within the markets of fruits and vegetables (BUGEM, 2012, pp. 4-6).

3.3.2 Turkey`s Export Markets

The European trade partners of Turkey are limited only including the countries of Germany, Netherlands, the UK and some Eastern Europe countries (Çakmak and Akder, 2005, pp. 3-5). However, the recent trends reveal that the Turkish agricultural sector has started to be more dominant in the global marketplace (Çakmak and Akder, 2005). In other words, Turkey has the capability to be able to export to the Nordic countries such as Finland, but the previous policies regarding the Turkish agricultural sector and the improper publicity and marketing regarding Turkish agricultural production have all negatively influenced the exports of fruits and vegetables produced by Turkey.

Table 6: The Export of Fresh Fruits and Vegetables of Turkey by the Destination for the period of 2009-2011 (Quantity in terms of million tons and value in terms of million US dollars)

Countries	2009		2010		2011		Share 2011 (%)
	Quantity	Value	Quantity	Value	Quantity	Value	
RUSSIAN FEDERATION	820,516	614,78	987,239	779,018	1,127,544	828,356	14,2
IRAQ	366,909	116,171	347,766	146,544	486,621	259,234	39,9
GERMANY	127,191	175,809	151,133	202,28	132,454	195,38	-12,4
UKRAINE	219,832	139,399	275,889	180,82	284,717	187,415	3,2
BULGARIA	268,561	197,314	210,451	166,847	159,381	115,94	-24,3
SAUDI ARABIA	148,05	86,812	147,148	94,719	170,604	109,417	15,9
ROMANIA	161,412	100,42	187,641	122,775	155,38	103,721	-17,2
IRAN	54,538	27,535	44,9	28,609	91,147	64,159	103
UNITED KINGDOM	26,822	35,232	22,778	31,132	27,302	35,221	19,9
MOLDOVA	24,104	13,781	27,343	16,353	52,023	34,918	90,3
TOTAL	2,692,338	1,872,211	2,897,050	2,156,585	3,195,190	2,301,617	10,3

Source: The Republic of Turkey Ministry of Economy Report, 2012, p. 4

The statistics reveal that Turkey is especially able to export the fresh fruits to more than fifty countries including Russia, the European countries such as the UK, Germany and Netherlands also Eastern European countries of Romania, Bulgaria and Poland and also Middle East region countries such as Iraq and Saudi Arabia (Republic of Turkey Ministry of Economy, 2012, pp. 3-5). This implies that Turkey has tried to take advantage of its geographical location and advantages by focusing on the export of agricultural products to neighboring countries.

The statistics also reveal that Russia is the main destination for fresh fruits and vegetables produced in Turkey with a ratio of more than 35-% of the overall export of Turkish productions (Republic of Turkey Ministry of Economy, 2012, pp. 4). In this regard, closeness to the target

market improves the export opportunities of the Turkish economy. As Russia is the main target we can say that border closeness matters for exporting and importing decisions of economies. Therefore, the agricultural products are preferred to be consumed fresh and as the distance decreases both the freshness of the exported products could be preserved and also the transportation costs could be decreased.

Based on the statistics (Republic of Turkey Ministry of Economy, 2012, pp. 1-2), the OECD countries are the main targets of its agricultural production. Among the export of the agricultural production of Turkey, the European Union countries constitute the largest pie among all export partners of Turkey (Balkir, 1993, pp. 1-4). Germany is the main export partner of Turkey for agricultural products. According to the statistics of 2008, almost 50-% of the agricultural production of Turkey has been exported to those European countries (Republic of Turkey Ministry of Economy, 2012, pp. 1-2). Recently, the political relations between Turkey and the Middle East countries and Islamic countries have been much more developed as they were before. As a consequence of the close relations with those countries, Turkey has increased its exports of agricultural production to those countries (Öniş, 2003, p.11).

Indeed, the geographical condition of Turkey between Europe and Asia and the inclusion of the climates of those two continents make Turkey as basic sources of the agricultural import of exotic fruits and vegetables for those countries. For instance, the climate of Northern Europe such as Germany and the Nordic countries is not appropriate for the production of the specific vegetables and fruits that require the Mediterranean climate (Maracchi et al., 2005, p119-120). Moreover, the dry climate of the Middle East and Africa is neither suitable for the production of specific agricultural products that require heavy rain such as tea, hazelnuts of Black Sea climate (Evans, 2009, p. 417). Therefore, Turkey has the advantage of producing all those kinds of vegetables and fruits owing to the climate variability in the country (Republic of Turkey Ministry of Economy, 2012, pp. 1-2). In addition to those, Turkey and the USA are also trade partners with respect to the agricultural production in that almost 3.5-% of the Turkey agricultural production exports are directed to the USA (Republic of Turkey Ministry of Economy, 2012, pp. 1-2).

The export of the agricultural products has also been positively influenced by developments in political arena. For instance, recently, the Middle East countries have increased their import of fresh fruits and also vegetables from Turkey owing to the improved relations between Turkey and the Middle East economies (Fidunoğlu et al., 1998, pp. 2001-2005).

On the other hand, the statistics also reveal that there is a decline in the ratio of the exports of fresh fruit and vegetables from Turkey to the EU countries such as Germany and Romania (see Table 6). Positively the Turkish economy is getting closer to the Eastern countries in the Middle East

such as Iraq. However, there is a considerable increase in the export of fresh fruits and vegetables from Turkey to the Russia, Moldova, Iran and other countries outside of the EU.

To sum up, Turkey can benefit from its agricultural production and also export of their production owing to its geographical location that provides many export destinations and from its varied climate that provides the variety in the production of vegetables, fruits and other agricultural production.

3.3.3 Comparison of the Agriculture Sectors of the EU and Turkey

The share of the agricultural production within the overall GDP is almost 8-% in Turkey but 2-% in the EU (Ozguven et al., 2010, pp. 92-93). They have also declared that only 6-% of the EU population lives in rural areas vs. 30-% in Turkey. Moreover, almost 28-% of the labor force of Turkey is employed in the agricultural industry. This reveals that Turkey is still an economy of agriculture-based. Based on the intensity of the population living in the rural areas, the number of agricultural enterprises in Turkey is much higher than the number of enterprises in the EU.

However, the average size of the enterprises in Turkey is just equal to the one-third of the average size of the enterprises in the EU for the agricultural industry. The number of the enterprises sized larger than 50 hectares has been 22 thousands in Turkey with the ratio of 0.7-% and 698 thousands in the EU with the ratio of 5-% (Ozguven et al., 2010, pp. 92-93). Furthermore, the production volume and the efficiency have been much higher in the big sized agricultural enterprises. Therefore, the European producers earn almost 7 times higher than Turkish producers. Once the agricultural production and efficiency are compared, those statistics mentioned above reveal that Turkish agricultural industry is much behind the agricultural industry of the EU. Once the nutrition levels of milk and also wheat are compared for those two markets, the levels for Turkey equal to almost 2500 kg ha⁻¹ and 2 thousands kg but the same levels for the EU equal to more than 5500 kg ha⁻¹ and 5500 kg (Ozguven et al., 2010, p. 92-93).

4 FACTORS AFFECTING TURKEY-FINLAND TRADE

4.1 International Trade Associations and Agreements

To begin with, many economies have started to be a part of trade partnerships and agreements and associations such as the European Union, NAFTA, Customs Unions and others (Blandford and

Fulponi, 1999, pp. 410-411). The common markets have created a market of agricultural production where the consumers could have access to a bigger market with more variety in the fresh fruits and vegetables at much lower prices. In this way, the economies have been able to focus on the specific categories of fresh fruit and vegetables that provide competitive advantage to themselves.

The Customs Union agreement signed by Turkey and European Union has covered the trade of processed products, and this agreement has removed custom taxes for processed products (Çakmak and Akder, 2005, pp. 3-5). It is stated that this agreement, in this regard, the export of agricultural products from Turkey to the EU has been through the processing of agricultural products.

Another issue also has been the competition in the global and also European market in fruits and vegetables (Nygård and Storstad, 1998, pp. 37-38). The European Union has expanded since the membership of Finland has been initiated in 1995. Many developing economies of Eastern Europe such as Bulgaria, Romania and other have been members of the EU. The expansion of the Union has also implied the expansion of the European common market. In this regard, Finland has become part of a Union that also consists of other Northern countries, Central Europe countries such as Netherlands, Germany and also Southern Europe countries such as Spain, Portugal and Italy and Eastern Europe countries of Romania, Bulgaria and others. The EU has enlarged in a way such that almost any fruits and vegetables could be produced by the member countries within the Union. It is assumed that this has also created blockage for Turkish exporters such that the member countries could more easily provide their nutrition requirements from other member countries that provide a wider range of the fruits and vegetables. This blocks the Turkish trade to the Union because the member countries could take advantage of the common EU market without needing any imports from outside of the Union.

Another block for the Turkish export to the Finnish economy has been the tariffs and quotas set by the EU (Thilmany and Barrett, 1997, pp. 95-99). As it is specified above, Finland like any other member country is subject to the EU regulations regarding agricultural products. In this regard, member countries cannot set the standards and also quotas and tariffs on their own separately from the overall Union. Unfortunately, the EU has set the quotas, standards and tariffs as high as possible in order to prevent more imports from outside of the Union.

4.2 Transportation

Another issue regarding fruits and vegetables exports has been transportation. Distance had been highly deterministic with respect to the choice of the trading partners due to the high level of

transportation costs and also lack of the high tech transportation vehicles in the past (Krueger et al., 1988, pp. 256-258). Today, transportation costs are still important owing to high petrol prices in the world. Especially in the current economic and financial crisis that the world experiences, transportation costs are more important in defining trade partners. However, owing to the technological improvements in transportation, consumers are able to consume the most exotic fruits and vegetables that come from the other side of the world. Despite the distance between the USA and Turkey, the USA has been one of the export destinations of the fruits and vegetables productions of Turkey (Demiryürek, 2004, p. 68). Once the distance between Turkey and the EU countries is considered, Europe has been one of the main trade partners of Turkey since the past owing to the geographical closeness between Europe and Turkey (Baier and Bergstrand, 2004, pp. 30-31). In this regard, Turkey could be regarded as a potential fruit and vegetables provider for the Finnish economy and population.

Transportation cost could be less or more important based on the features of the specific fruit or vegetables (Coyle et al., 2001, pp-32-34). For instance, it is stated that some fruits and vegetables are subject to be more easily perishable in a short period of time or the specific fruits or vegetables could be subject to be perishable due to transportation conditions. They might require a better packaging, for instance. As transportation cost becomes less important, the economies could be able to export too many countries as well. Today, as transportation facilities have been improved, Turkey has been able to provide fruits and vegetables even to Nordic countries.

4.3 Fruit and Vegetables Standards Set by the EU

There are some other issues that do block the trade of fruits and vegetables from Turkey to Europe and Finland as well. First of all, although Turkey has been a member of the Customs Union, the EU regulations are heavy with respect to standards of the imported fruits and vegetables (Jaffee and Henson, 2004, p. 29). Especially after the recent mortgage crisis, the EU countries have mostly experienced financial difficulties (Coles and Hardt, 2000, p. 776). In order to deal with the results of the crisis, those European countries have preferred to decrease their imports and provide their needs through the common market of the EU (Yamin and Haoshen, 2010, pp.2-3). Therefore, since Turkey is outside of the EU, the exports of Turkey to the EU countries have been mostly blocked by the member countries. More importantly, the EU countries prefer to set higher standards for the fruits and vegetables imports from outside of the EU in order to keep the imports at low levels. However, Turkey could handle the issue of the blocks set by the EU for the import

of fruits and vegetables through acquiring standards such as ISO and other documentations specified above for organic agricultural market (Akder, 2007, pp. 515-517).

4.4 Climate and Location

To begin with, the climate and type of the soil have been the main indicators of whether a country is able to produce specific fruit or vegetable or not since the first production of the agricultural product in the world history (Mendelsohn et al., 2001, pp. 85-86). It is stated that some soil types and climate have been suitable for the specific fruits and vegetables production but not suitable for some others. Some fruits and vegetables require specific climate to be grown up but some others could be grown up under any climate conditions except the extreme climate conditions. For example, apples could be grown up in a much larger geography, but they should be consumed as soon as possible after the harvesting (Eccel et al., 2009, pp. 273-274). In this regard, distance between the origin country and the destination country of the trade matters for easily perishable fruits and vegetables. This easiness to perish also improves the importance of geography and the climate much.

Once the conditions specific to Turkey are considered, it is clear that Turkey has a much more different climate than the EU countries (Ozguven et al., 2010, p. 95). Moreover, agriculture is under the control of the small family businesses protected under the rights of property (Ozguven et al., 2010, pp. 89-90). Through time, as the arable lands are increased, the number of small business dealing with the agricultural production has increased as well. According to the statistics of 2001, the average agricultural enterprise size has been equal to around 60 thousand square meters (Ozguven et al., 2010, p. 91). The biggest size of enterprise operates in the city of Sanliurfa in Eastern Turkey with the size of 195 thousand square meters, and the smallest one operates in the city of Rize with the size of 12 thousand square meters (Ozguven et al., 2010, p. 91). These multi-partite and small sized structures of the agricultural enterprises of Turkey have prevented the incentives for the big sized investments. Depending on those incentives, the investors and also the producers of agriculture sector have not preferred to invest in the high-tech applications regarding the industry. In other words, this structure of the Turkish agricultural market has retained the market from growing and working efficiently.

Furthermore, the climate has started to change gradually. Although the general trend in the climate is more or less the same; there are certain periods of dryness or periods of heavy rain for some specific regions of the world (Cline, 1996, pp. 1309-1310). As it is stated in the previous parts, recently Finland has had a much drier agricultural season that ever before. This does not only

influence the amount of the agricultural production but also the quality of the production negatively. However, seasonal changes in the world climate have increased the available product variety in the fresh fruits and also vegetables with the assistance of the technological improvements in the production techniques. For instance, the south part of Turkey is now able to produce more exotic products that have not been able to be produced before such as pineapples and others (Küden and Tanriver, 1997, pp. 52). However, as it is specified above, Finnish economy has been experiencing problems regarding its agricultural production such that the climate has decreased the amount of rainfall in the country, and also the EU common market has negatively influenced the agricultural market of Finland. It is stated that their own local production is not enough to feed their local population. Therefore, the high level productivity and also high product variety generate a high level possibility for Turkey and Finland to be trade partners regarding agricultural production.

Once the climate is considered for the case of Turkey with respect to the agricultural production, the future does not seem optimistic. It is estimated that Turkey, within its complicated climate structure, has been one of the countries that will be influenced from the climate change resulting from global warming. Turkey is surrounded by three seas of Black Sea, Aegean Sea and Mediterranean Sea, the topography of country is problematic, and also Turkey's geography is heavily mountain-based (Ozturk, 2002, pp. 47-48). All those physical features of the country imply that different regions will be affected differently from global warming and climate change in the future. It is especially expected that South Anatolia and Central Anatolia will be under the risks of desertification due to the expected increase in the average temperature in the whole globe (Ozturk, 2002, pp. 48-49).

Moreover, it is estimated that the dry and half-dry regions of Turkey and also the regions where the water resources are not enough such as Aegean and the Mediterranean regions will be negatively influenced from the average temperature increase (Ozturk, 2002, pp. 48-50). In short, it is specified that those regions of Turkey mentioned above will experience many problems about the productivity and the size of the arable lands for fruits and vegetables production. In this regard, the exotic fruits and vegetables that are heavily produced in the Mediterranean region of Turkey are subject to the productivity decrease and the loss of the arable lands due to the rapid increase in the average temperature (Ozturk, 2002, pp. 50-51). Eventually, this will affect agricultural production negatively and also the product variety of the Turkish agricultural sector.

4.5 Consumer Preferences

The historical analysis of the export and import of fresh fruits and vegetables reveals that there is a changing trend in the export and import activities of every economy, and also there is a change in

the trends about the expectations of the consumers about agricultural production (Raynolds, 2000, p. 303). In the past, the main concern of the consumers and the economies has been how to deal with the excess demand and disasters such as famine that result in the lack of the proper nutrition of the populations (Baker, 1999, pp. 81-82). However, today the agricultural areas have declined, but the productivity has increased owing to technological improvements and also developments in the watering and other techniques (Ruttan, 2002, pp. 162-163). Therefore, today the consumers of the agricultural production demand more quality, more environmental friendly and organic products. More importantly, today's consumers are more concerned about the safety and health about the agricultural products that they consume.

The number of people who are more concerned about their health has increased recently (Jeyaratnam, 1990, pp.139-140). As more and more people are concerned about their health, the importance of retrieving nutrition from the fruits and vegetables has increased as well (Kaur and Kapoor, 2008, p. 713). The fast food consumption has been aimed to decline, and the demand for specific fruits and vegetables is tried to increase recently. This trend especially has been influential in the developed economies where the living standards on average are highly improved and also average income has increased substantially in the last century. Therefore the fruits and vegetables demand in the developed economies has been the highest in the world (Lohr, 2001, p. 67). Eventually, this could increase the demand of Finland as any other developed economies for the fruits and vegetables market, and the overall Union may not be able to satisfy the demand of the whole EU population with respect to the agricultural production. Therefore, Turkey could be regarded as a better trade partnership owing to their product variety, overall quality, high level of nutrition of the products of agriculture, geographical location and also the lower prices due to the exchange rates.

4.6 The Past, Present and Future Factors Affecting the Agriculture Trade between Turkey and Finland

Since the 1950s, there have been many rapid trends experienced in the national market of Turkey and also world market with respect to the consumption and production fruits. Those factors include the increase in the popularity of exotic fruits owing to the easiness of individual travel, the developments in cold air storages; the transportation web that defers the perishing of fresh fruits; the transportation time decreased; the food processing methods developed; the improvements in the distribution channels and many other technological developments (Storey, 1969, p. 15; Samson, 1980, p. 15).

Starting from 1980s, the EU policies have also started to emphasize the importance of sustainable development in every economic area of the country including the agricultural production. Starting from 1990s, the EU has initiated the environmental projects including the issues about the agricultural production. In 1992, the EU initiated the Common Agriculture Reform (Brouwer, 2000, p. 15). Brouwer has emphasized that the integration of the agricultural, politics and environmental issues were not based on the creation of a sustainable development in agriculture. The main aim of the EU has been to decrease the excess number of the agricultural labor in 1980s (Brouwer, 2000, p. 15). During the negotiations of the World Trade Organization about the agricultural politics, the EU has tried to get some pie from the world agricultural market that has been mostly dominated by the US (Gibbon, 2003, pp. 617-618). This has implied that in order to do increase their share in the global agricultural market, the EU has targeted to decrease the agricultural supports based on the production in order to create a free market for the agricultural production within the EU. Moreover, they have also tried to decrease the share of the budgets assigned for the agricultural production (Gibbon, 2003, pp. 617-618). This is because in the past, the share of agricultural production in the overall of budget of the EU has constituted more than half of their budget.

The different structure of the Turkish agricultural market, also the different geographical, economic and social-cultural aspects of Turkey have all influenced the agricultural market of the country differently. In other words, the EU countries and Turkey have different agricultural market conditions because the EU countries and Turkey have different economic, environmental, social-cultural aspects (Burrell and Oskam, 2005, p. 3, 219). Eventually, the effects of those factors on the agricultural markets of the EU and Turkey differ from each other. In Turkey, the main problems related to the agricultural production have been the recent emergence of the watering issues, the decline in the quality of water resources and also the decrease in the amount of the water resources needed for the agricultural production (Burrell and Oskam, 2005, p.43). The intensive agricultural activities of Turkey have resulted in the increase in the environmental risks; neither has the scarce resources been implemented and used efficiently. Eventually, this inefficient development of the agricultural market in Turkey is expected to negatively affect the social and environmental lives in the future. Then these inefficiencies specific to Turkey might also negatively influence the trade relations with the EU and Finland.

Burrell and Oskam (2005, p. 219) state that, whether Turkey prefers exporting to the EU common market or not, Turkey is obliged to comply with the agricultural standards and regulations of the EU in order to be a member of the Union in the future. Although Turkey has not fully implemented the agricultural standards and policies set by the EU, there have been some

initiatives carried out by the Turkish government in order to harmonize the Turkish agricultural sector with the EU agricultural policies.

The agricultural sector of Turkey has been negatively influenced and under-developed due to the recent factors of instabilities of the global agricultural market, economic crisis of 2009, the animal related diseases and also the climate and environmental changes in the globe (Ozguven et al., 2010, p. 89). Moreover, the agricultural production has found out another industry to be developed and used: the bio-fuel industry (Ozguven et al., 2010, p. 89, 99). They have stated that the return from the usage of the agricultural production in the bio-fuel industry has been much higher than the return from the export and/or sales of the production in the national market. Therefore, the producers in agricultural sector have started to prefer supplying to the bio-fuel industry. This is eventually expected to raise the price levels of the foods market globally. Then the countries may prefer to satisfy their food demands in the local market.

Those changes in the climate, consumer trends, the generation of a more global marketplace, political and economic approach to the common markets and also technological changes in the market of fruits and vegetables have all influenced the export-import decisions of every economy. Although the global trends and also the Finnish economy-specific conditions could all support the trade partnership between the Finnish economy and Turkish economy, the national and local features of the Turkish economy also matter for the import of fruits and vegetables to Finland and any other European markets.

Turkey should also be able to feed her own population. The Turkish population is much younger than that of its European counterparts (Tuncer et al., 2005, pp. 216). After meeting the nutritional requirements of the Turkish population, the country could be able to export to other markets. Moreover, climate changes in the overall globe have affected the agricultural market of Turkey as well. In addition to those, not all of the fruits and vegetables producers are able to retrieve the legalization and documentation for the trade to the EU as well. Those are all barriers preventing the Turkish agricultural industry from trading with the EU.

In short, based on geographical location Turkey is able to produce and provide the fruits and vegetables that the Finnish population needs and requires. Moreover, the EU dynamics and also the climate change have all negatively influenced the Finnish agricultural market. Eventually, especially the Finnish fruits and vegetables markets have needed to import the fruits and vegetables from the other EU countries and also outside of the EU. The product variety, high volume of production and also the certified quality of the fruits and vegetables of the Turkish economy could be regarded as the one of the best import choices for the Finnish economy.

4.7 Other Factors

Furthermore, other concerns about the trade between Turkish agricultural sector and Finnish market have been the seasonality and also the price fluctuations in the global marketplace (Jalonoja and Pietola, 2008, pp. 70-72). The seasonality in the world agricultural market implies that South parts of the world could only harvest during specific seasons when the North parts of the world live the opposite seasons. Moreover, the countries located closer to the south and closer to Ecuador are more able to produce some fruits and vegetables in an earlier season than the rest of the world. In other words, Turkey, as being located to much closer to the Ecuador and have parts in the South, is more able to produce some agricultural product much earlier than Finland does.

However, the technological improvements in the agricultural production such as evaluation of the greenhouses have resulted in the fact that the countries in the North parts of the world also become able to produce during a larger span of life (Kläring, 1999, p. 136). The storage capabilities have also improved the protection of the produced products of fruits and vegetables (Kalt et al., 1999, pp. 4639-4641). In other words, the production at any time during the harvesting period could be protected for a longer time and consumed in the following periods and seasons of the year. The less seasonality effect on the fruits and vegetables production has also prevented the prices of those agricultural productions from fluctuating through the year of harvesting. In this regard, Finnish agricultural economy has been also able to produce specific fruits and vegetables during the whole year. In the same regard, Turkey has been able to produce and export the fruits and vegetables any time during the year.

However, the demographic issues such as the population growth and/or the improvements in the life period of world populations have also affected the world market. As it is known, the European market is becoming older every passing year (Bos and Von Weizsacker, 1989, p. 347). It is stated that the birth rates in European countries have heavily fallen, and also the death rates have fallen as well. Average lifetime of European population has increased. Eventually, all those developments have affected the demand for the agricultural production and nutrition of the populations.

Another important trend regarding the market of fruits and the vegetables has been that the developed economies have started to be more focus on the industrial manufacturing and production and technology rather than the agricultural production (Rasmussen, 1982, pp. 77-79). The openness of the economies to the international trade has emphasized the importance of the competitive advantage. Therefore, the economies have been more focused on the high tech industries and manufacturing that generates highest level of return with respect to the agricultural

production. The most developed economies of the world consist of the USA, and the EU countries. Those countries could also produce the agricultural production, but they cannot feed whole of their population only with their local production and also they could generate more wealth by directing scarce resources toward high value adding activities in manufacturing industries (Milgrom and Roberts, 1990, pp. 512-513). It could be stated that the same also holds for the economy of Finland such that, as also specified above, the Finnish economy has directed their scarce resource toward the manufacturing and high tech industries such as mobile phone industry rather than agricultural production (Littunen and Tohmo, 2003, p. 195). In this regard, it could be concluded that the developing economies have been the main provider of fruits and the vegetables and other agricultural productions to the developed economies.

Although Turkey has been one of the highly developing countries of the world, they have better geographical and also climate conditions that assist the local Turkish producers to produce high quality fruits and vegetables (Baris and Uslu, 2009, pp. 767). In other words, the agricultural product variety of Turkish production and the central location of Turkey among Europe, Asia and Africa make the country as one of the main exporters of fruits and vegetables in the global marketplace.

With respect to the economic indicators of international trade such as exchange rate (Balassa and Schydrowsky, 1968, pp. 348) Turkey could be regarded as a better choice as an import of fruits and vegetables from the viewpoint of Finland. Since, Finland is a part of the common monetary union of the EU implying that the currency of Finland, Euro is much appreciated with respect to the Turkish Lira (Atasoy and Saxena, 2006, pp. 30-34). In this regard, the value of the same volume of agricultural production from Turkey and another European country to Finland is considered, the import from Turkey also accounts for less from the perspective of Finland.

To sum up, Turkey could be a better import partner for Finland economy especially based on the facts of cheapness, the distance and agricultural variety of the Turkish agricultural market.

Once the case of Finland is considered, the analysis carried out above reveals that Finland is not able to feed their own population as specified in previous part of this study. Especially toward the end of each year, the lack of the available nutrition becomes a more important issue. Also this holds for whole Europe. Therefore, the prices of vegetables and also fruits increase especially during the last months of the year. In this regard, the fruits and vegetables of Turkey could be regarded as a suitable import source for the Finnish economy and population. This is because, although the technology has improved the production techniques, the location of Turkey is much closer to the Ecuador and Northern parts of the world. Therefore, Turkey is much more able to produce the especially exotic fruits and vegetables for a longer time during the year. In this way,

Finland, by generating trade partnership with Turkey, could satisfy the nutrition requirements of their population at lower prices.

With respect to the conditions specific to the assisting industries for the fruits and vegetables production, the large stores, supermarkets, local markets and all other retailers have created a better distribution network (Calvin et al., 2001, pp. 45-50). In this way, the overall available market size could be also increased for any importer as well. More importantly, the local and also global retailers such as Carrefour have carried out heavy import of the exotic fruits and vegetables (Jones et al., 2004, pp. 328-330). Moreover, the increase in the product variety of retailers has supported the increase in the demand for agricultural products by generating new categories of the same fruit or vegetable. For instance, the variety of tomatoes has increased such that new types of tomatoes such as cherry tomatoes are introduced into many markets.

In another work, Tyers and Anderson (1992) has concluded that in line with tendency of population decline also the fruits and vegetables markets have started to reach to their maturity levels in those Common Market countries. Besides, in the Common Markets Turkish producers have many competitors that could also provide exotic fruits and vegetables to the markets. Within market conditions such as those, Unnevehr (2008, pp. 231-233) has suggested that the main success of the entrance of the Turkish fruit and vegetables producers into the common markets depends on the quality and the standards and also the tastes of those agricultural products. In a similar work, Renard (2003, pp. 87-88) has emphasized the importance of the trade memberships to specific trade unions and associations such as GATT.

In the literature, many studies have focused on the one simple determinant of the export of Turkish fruits and vegetables to the Common market countries as the detailed analysis above reveals. Among those determinants recently one of them has become more influential on the fruits and vegetables exports of Turkish producers. This has been the lack of proper international marketing applications and strategies. There is a certain negative trend towards the fruits and agricultural production of the developing economies within the developed markets (Kemming and Sandikci, 2007, pp. 33- 36). Therefore, the Turkish producers also have to improve their images in the eyes of the populations and consumers of the developed economies such as Finland. Unfortunately, this negative attitude toward the Turkish agricultural production does not make the retailers to choose the Turkey originated fruits and vegetables as the first alternative (Sandıkçı and Ekici, 2009, p.211).

5 CONCLUSION

This study has focused on the solution to the problems of the Finland fresh fruit and vegetable market and the nutritional requirements of the Finnish population by asserting that trade opportunities with Turkey could improve the current and possibly future needs of the fresh fruit and vegetable market of Finland.

The author tried to find the answers to the research question `Can Turkey meet Finland`s fresh fruit and vegetable demands as Turkey is a self-supporting agricultural country?`

In this thesis, a detailed analysis of the agricultural markets of Finland and Turkey has revealed that exporting Turkish agricultural products is a solution to the specific problems of Finnish fresh fruit and vegetable market and the nutritional requirements of the population. This is because Turkey is one of the few countries that have been able to realize a wide variety of agricultural production owing to the local climate conditions. Although the global trends and changes taking place have started to also positively influence the Turkish agricultural sector, once the mechanization and the market structure of Turkey have been developed in the sector, Turkey can become the best candidate for satisfying the nutritional demands of the countries needing to import agricultural products. Indeed, the Turkish agricultural sector has already started to improve especially in the market of processed and/or organic sub-markets of the agricultural sector. When the closeness of Finland and Turkey is also considered, this also implies the minimization of the transportation costs for Finland. More importantly, the political closeness between Turkey and the EU also makes the agriculture based trade between Turkey and Finland easier.

All these mentioned explanations and statistical numbers above showed that Turkey is a strong and adequate agricultural source for Finland`s fresh fruit and vegetable demands and nutrition requirements of Finnish population.

As an entrepreneur the author needs to find new business opportunities and to carry on the business, there are agricultural products from all around the world, from countries such Argentina, Brazil, Egypt, Morocco, Israel, Iran, South Africa, the Netherland`s, Spain, Italy etc. in the Finnish fresh fruit and vegetable market but no Turkish agricultural products. This situation motivated the author to start fresh fruit and vegetable trade between Finland and Turkey although there is a little trade because of some specific Turkish agricultural products. All the findings above are motivating for this trade. The findings can also benefit companies that want to make agricultural business with Finland. At this point, all the fresh fruit and vegetable export companies from Turkey must focus on the Finnish market, because Finnish market is a continuous market where every season`s agricultural products could be sold. In every agricultural fair, in every international

agricultural organization, Turkish fresh fruit and vegetable export companies must show their interest in the Finnish market and import companies. Those Turkish companies must make informative studies about the Finnish market and show their products to the Finnish importers. Finnish companies must also focus on Turkish agricultural sources and realize that Turkey as a candidate country to become an EU country is a profitable, adequate and qualified source for Finnish fresh fruit and vegetable import demands. This is more beneficial for Finnish importers than Turkish exporters regarding the low cost transport, highly qualified products, EU standard products, etc.

There are certain figures and observations to consider after looking at the agricultural situations of both the countries, Finland and Turkey. The author had a look in the quantitative data of both the countries. There were two main data sources, the Finnish and Turkish statistical institutes. These are state institutes that publishing data yearly and the data on the countries provided by the official statistical institutes is reliable and objective.

To sum up, the results of this study suggest that Turkey, as a self-supporting country is able to meet the agricultural and especially fresh fruits and vegetables demand of the Finnish population.

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7 APPENDICES

7.1 The main exports of fruits and vegetables of Turkey

Apples

Turkey is the third apple producer country in the world. Apples can grow and produced almost everywhere in Turkey. Isparta, Niğde and Karaman cities supply half of Turkey's total apple production. Apple can be consumed as fresh, and also can used in wine, vinegar and fruit juice industry. The most favorite apple varieties for fresh production are Golden and Granny Smith which are mid-season varieties.

Availability: June-October.

Apricots

Turkey is the first and biggest fresh and dried apricot producer in the world. Dried apricots are produced in Malatya, Elazığ, Nevşehir and Niğde cities, the other cities produce apricots for fresh consumption. The Mediterranean and The Aegean Regions have excellent geographical, climatic and ecological conditions to produce the early apricot varieties. Hasanbey apricots are the most favorite variety for fresh consumption and preferred also as dried consumption. 80-85-% of the dried apricots production is exported. Traditional ways are used for dried apricot producing and dried apricots are exported to almost 70 countries, mainly to USA, Germany, England, and France.

Availability: May-August.

Cherries

Turkey ranks first country in the world for cherry production and the largest cherry exporter country in the world. Cherry is a variety of fruit cultivated widely over the country as Turkey has perfect soil and climate conditions to grow sweet cherries in the country. The primary variety grown in Turkey for export is a cherry called Ziraat cherry.

Availability: Mid- May and beginning of August.

Chestnuts

Turkey has the third place in the world in chestnut production. Because of the special climate conditions, the Aegean Region has almost 75-% of the chestnut production in Turkey. Chestnuts are usually used in candy producing but also exported as fresh consumption.

Availability: September-January.

Cucumbers

Turkey is the second biggest cucumber producer in the world. Cucumbers are intensively cultivated in open fields and in greenhouses in the Mediterranean Region. These cucumbers are smaller in size and they differ from the other foreign varieties.

Availability: All year round.

Dry Onions

Turkey is in the third rank place in the world dry onion production. Dry onions are cultivated in a large area in Turkey, in the Marmara, in the Mediterranean and in the Central Anatolia regions.

Availability: June-October. Stored onions are offered all year round.

Figs

Turkey is the first country in the world fig production and exportation. Figs are almost native plants of the Marmara, Aegean and Mediterranean Regions. Figs are produced for fresh and dried consumption. The Aegean Region fig productions are mostly for dried consumption. The Mediterranean and Marmara Regions fig productions are for fresh consumption. The most favorite fig is Bursa black fig which is grown in the Bursa region. Almost all of the figs produced in this Bursa region are exported. Bursa black variety, which is the highest quality fig in the world, is especially demanded by European countries.

Availability: August-September

Grapes

Turkey is the fifth country in grape production in the world. Most of the grapes harvested are seedy and less of grapes harvested are seedless. Seedless grapes are produced mostly in the Aegean Region. The grapes produced in the Marmara region are usually used for wine industry and fresh consumption. In recent years, Central and South-eastern Anatolian Regions have important developments in all kind of grape production. In Turkey only 3-% of the harvested grape is used in wine industry. Turkey exports mostly seedless grape and a seedless grape variety called Sultan has the 95-% of the exported grapes of Turkey. The main export countries of fresh grapes are Germany, Australia and the Netherlands. Seedless raisins are exported to 21 countries.

Availability: June- October.

Grapefruits

Ruby red grapefruit variety is grown in the western part of the Mediterranean Region in Turkey. It is one of the most exported grapefruit varieties from Turkey for fresh consumption.

White Marsh grapefruit variety grows in the Western Mediterranean Region and this is one of the oldest white grapefruit varieties produced in Turkey. This variety is usually used for the segment industry.

Availability: October-March.

Hazelnut

It is known that hazelnut has been exported from Turkey to other countries. Turkey has the most appropriate weather conditions for hazelnut production and Turkey cultivate 75-% of world hazelnut production and turkey makes about 75-% of global exportation. Turkish hazelnut grows only in Black Sea coast from city Zonguldak to Georgian border in east Anatolia.

Availability: Depending on the altitude August-September

Leeks

Turkey ranks fifth country in the world leek exporting. There are several varieties of leeks with different names according to the local region where they are grown. The best variety of leek grown in Turkey is Kamış that owns very long and white color leaves.

Availability: November-April.

Lemon

Turkey is the country where Interdonato lemon variety grows the most in the world, especially in the Eastern Mediterranean Region. This is an early variety and it takes the biggest share in Turkish lemon exports.

Lamas lemon variety needs special ecological conditions to grow and this is why lamas lemon grows in a limited area of the Mediterranean region, in Mersin city. It is an early variety of very good quality, coming just after the Interdonato lemon.

Availability: September - February.

Mandarin

The Satsuma variety mandarins usually grow in the Eastern Mediterranean Region in Turkey. The fruits are quite large and flat.

The Minneola mandarin variety grows most in the Eastern Mediterranean Region. It is a mid-season variety. Fruit is rather large and has few seeds.

The Fremont mandarin variety grows only in Turkey, in particular region of Adana-Mersin and is mainly exported to the Middle-East countries, where it is highly demanded.

Availability: October-March.

Olive and olive oil

In Turkey there are nearly 85 million olive trees and about 75-% of olive trees are in Aegean Region, about 15-% olive trees are in Mediterranean Region, about 10-% olive trees are in Marmara Region. Turkey is the fifth biggest olive producer in the world and Turkey has the world's second biggest olive oil industry in the world. Turkey exports olive oil to more than 90 countries in the world and again Turkey today exports olive more than 65 countries in the world.

Orange

Orange Washington navel is the oldest orange variety known in the Mediterranean Region. Among the oranges this variety is sold for fresh consumption. It grows in all the Mediterranean coast from Antalya to Hatay.

Orange Jaffa variety mainly grows in the city of Mersin in Turkey. It is just for fresh consumption.

Orange Valencia variety grows in the Mediterranean region in Turkey like other oranges varieties. This variety is both suitable for fresh and industrial consumption.

Availability: October-March.

Peaches

Turkish peach production has an important place in the world peach production and export. Because peaches can grow almost everywhere in Turkey but, 50-% of the production is made in the Marmara Region. The Mediterranean Region produces early varieties, while the Marmara and Aegean Regions produce late varieties. The yarma variety has high level aroma and very good smell. In addition to fresh consumption, some varieties of peaches are produce for canning and fruit juice.

Availability: May-September

Pears

A lot of domestic varieties of pears are grown everywhere in Turkey. Turkey is among the first 10 countries in world pear production and exportation. Pears have many varieties and they are very nutritional fruits. Some varieties produced in summer and some produced in winter,

Peppers

Turkey is the third country in the world pepper production. Peppers could be produced both in open areas and in protected greenhouse areas in Turkey in the Mediterranean Region and mostly produced in Antalya, Bursa, Mersin, Hatay and Samsun. Peppers have been exported to the Central and North European countries recent years. Turkey places at the fourth rank in the world pepper export. The main varieties can be classified as; charliston, big red pepper, sivri uclu pepper, stuffed pepper, conic pepper.

Availability: All year round.

Plum

Plums are delicious fruits that can be eaten raw or dried. They are also used to make sauce and conserves. There are many varieties

Availability: May- September

Pomegranates

Pomegranate is produced mainly in the Mediterranean, Aegean and Southern Eastern Anatolian Regions. The production cities are Finike, Kemer in Antalya, İzmir and Mersin. There are different varieties of pomegranates. The most important export countries are Germany, Austria, United Arabian Emirates, Belgium and Denmark. Pomegranate is appropriate to be stored during 4-6 months because of its specific texture of the rind.

Availability: July- December, but stored fruits are supplied to markets until February.

Potatoes

Potatoes are most exported vegetable products of Turkey. Potatoes are grown almost in every region, but especially and the most in the Central Anatolian Region.

Availability: May-September. Stored potatoes are offered all year round.

Quinces

Turkey ranks first in the world quince production by producing the 25-% of the total world production. In Turkey, quinces are produced mostly in the Mediterranean, Aegean and Central Black sea Region. Quince has skin, wonderful smell, firm flesh and delightful sour flavor. The domestic varieties of high quality quinces are exported.

Availability: July- September

Spinach

Spinach produced almost everywhere in Turkey.

Availability: September - April

Tomatoes

Tomato, today is one of Turkey`s most exported vegetables. Turkey, as a tomato producer, takes the third place in the world. Tomatoes are cultivated to a great grade in the Aegean, Marmara and Mediterranean Regions. Tomatoes are grown for both industrial use and fresh consumption. Turkey has a very well developed tomato processing industry and produced tomato paste and it ranks fourth in world tomato paste export. Marmara and Aegean Regions are important especially in tomato processing sector. There are early and autumn varieties of table tomatoes, which are cultivated both in open and in protected greenhouse areas.

Availability: All year round.