TURKISH ORNAMENTAL PLANTS SECTOR IN THE EUROPEAN UNION SCREENING PROCESS

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A B S T R A C T

Turkey, being a bridge between Asia and Europe, is a critically important country owing to its ecological advantages including a wealth of herbal flora. Despite this, ornamental plant production which began in 1940, has not developed as expected. In 2003, the total value of agricultural products was 32 billion Euros. However, ornamental plant production value was 276 million Euros in Turkey. In other terms, the portion of the ornamental plants sector in the total agricultural production value was 0.9%. On the other hand, the total exports of ornamental plants amounted to US $35.6 million in 2005. This document will analyze the structural problems of Turkey's ornamental plants sector with respect to the E.U. standards and discuss regulatory implications.

Key words: floriculture, cut flowers, outdoor and indoor ornamental plants, natural flower bulbs

INTRODUCTION

Turkey is the only pluralist secular democracy in the Muslim world and has always attached great importance to developing its relations with other European countries. Agriculture is expected to be one of the toughest areas in the accession negotiations that started in 2005. The difficulty will not only arise from the state of agriculture in Turkey, but also from

the European Union's ever-changing agricultural policy. Turkey's ability to implement structural adjustments in its agriculture during the pre-accession period will be one of the most important factors in easing the country's accession. Turkey's membership in the E.U. may be perceived by both parties either as a "threat" or an "opportunity" for different reasons. The comparison of institutional and technological capabilities may lead to the conclusion that it is a potential "threat" for both the E.U. and Turkey. However, it is possible to start paving the way towards seeing it as an "opportunity" by taking proper institutional and policy measures prior to the accession. The structure of the basic factors of production in agriculture is viewed as a major problem. Yet, the availability of untapped resources reveals a significant potential.

Due to increases in environmental consciousness, gross national product per capita, level of education, production of, and demand for ornamental plants has increased rapidly. Under these circumstances, the ornamental plants have become one of the most important sectors of agricultural production (Karagüzel and Taşçıoğlu, 2004).

Ornamental plants can be put into four categories: cut flowers, outdoor and indoor ornamental plants, and natural flower bulbs. 145 countries in the world have been commercially producing ornamental plants, and the area of production in these countries has been estimated at 223 105 ha (Gürsan and Erkal, 1998).

According to the estimations of Rabobank, the income of the ornamental plants sector is over US $ 50 billion. Cut flowers take first place, amounting to US $ 24.7 billion, followed by indoor ornamental plants (pot plants) – US $ 14.3 billion, outdoor ornamental plants (trees, shrubs, etc.) – US $ 7.6 billion, natural flower bulbs – US $ 0.9 billion and US $ 1.6 billion other production materials (seed, cutting material etc.) (Yazgan et al., 2005). The E.U. countries possess an important share in the production, usage, import and export of plants, and plant material worldwide.

This research paper deals with the current status and potential of the ornamental plants sector in Turkey. This is important as Turkey is a candidate country for membership which has started accession negotiations with the European Union.

GEOGRAPHICAL LOCATION OF TURKEY

Turkey is located halfway between the equator and the North Pole (latitude 36°N-42°N, longitude 26°E-45°E). Rectangular in shape (1660 kilometers long and 550 kilometers wide), the country is divided into 7 geographical regions: Black Sea, Marmara and Thrace, Aegean, Mediterranean, Central Anatolia, and Southeastern Anatolia (Fig. 1).

The actual surface area of Turkey, lakes included, is 814 578 km^2, 790 200 km^2 of which are in Asia and 24 378 km^2 are located in Europe.

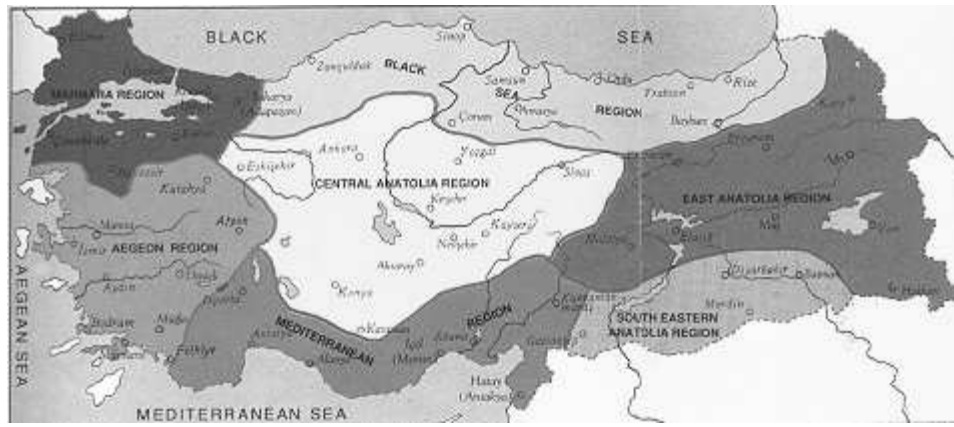

Figure 1. Geographical regions of Turkey

Turkey is bounded by the Black Sea in the north, Georgia, Armenia, Azerbaijan and Iran in the east, Iraq, Syria and the Mediterranean Sea in the south, Bulgaria, Greece, and the Aegean Sea in the west. The average rainfall is about 650 mm, which varies considerably from region to region: the central plateau and south-eastern plateau receives an average of 250 mm; while the north-eastern Black Sea coast receives 2500 mm. In the western and southern coastal zones, there is a subtropical, Mediter-ranean climate. Arid and semi-arid climate prevails in the central and south--eastern regions.

HISTORICAL BACKGROUND OF THE ORNAMENTAL PLANTS SECTOR IN TURKEY

Production of ornamental plants in Turkey started with the production of cut flowers in the 1940s (Karagüzel and Taşçıoğlu, 2004; Özkan et al., 2003). Flower production started in Istanbul and the Prince Islands, and then developed in Yalova. In 1945 the first cooperative floricultural society was founded, followed by a second society in 1955. During the 1970s, flower production started in Izmir as an alternative to vegetable production. At the same time, cut flower production started in Antalya with the growth of roses (Baktır et al., 1990). In 1985, cut flowers grown in greenhouses developed with Israeli technology were exported from Antalya, and the government for the first time permitted the import of potted flowers. After 1990 border trading started, particularly with Bulgaria, Romania and Russia, while exports to other countries of the world continued to increase.

Turkey's ornamental plants production consists of cut flowers at 59%, outdoor ornamental plants at 31%, indoor ornamental plants at 4% and natural flower bulbs at 6% (Anonymous, 2006). Today, ornamental plants are produced throughout Turkey in 6 regions. They are mainly produced in

Table 1. Ornamental plant production regions by province – (Anonymous, 2006)

Region name	Province	Ornamental plants – total area planted [ha]	Ornamental plants – outdoors total area [ha]	Ornamental plants – total green-house area [ha]	Ornamental plants – glass green-house area [ha]	Ornamental plants – plastic greenhouse area [ha]	Ornamental plants – high tunnel area [ha]	Ornamental plants – low tunnel area [ha]
Mediterranean	Adana	35.5	9.9	24.6	1	24.6	0	0
	Antalya	505.3	78.1	425.2	33.3	392	0	0
	Burdur	405.7	402	2.7	1	2.7	0	0
	Isparta	1652.4	1615.9	35.5	1	35.5	0	0
	Mersin	27.6	6.3	20.3	2.7	16.9	1.6	0.1
	Hatay	2	0	1	1	1	0	0
	Total	**2628.5**	**2112.2**	**509.3**	**40**	**472.7**	**1.6**	**0.1**
Aegean	Afyon	71.5	70.5	0	1	0	0	0
	Aydın	15.5	8.3	6.2	1	6.2	0	0
	İzmir	487.8	165.4	321.4	17	301.6	3.8	0
	Manisa	180.4	176.3	3.1	1	2.9	0.2	0
	Muğla	4.7	0.6	3.1	1.7	2.2	0	1.2
	Total	**759.9**	**421.1**	**333.8**	**21.7**	**312.9**	**4**	**1.2**

Central Anatolia	Ankara	18.1	13.5	3.6	1	3.5	0	0
	Eskişehir	5.9	2.4	2.5	1.3	1.7	0.1	0
	Konya	13.5	12.5	0	1	0	0	0
	Total	**37.5**	**28.4**	**6.1**	**3.3**	**5.2**	**0.1**	**0**
Marmara	Balıkesir	20.9	19	0.9	1.2	0.7	0	0
	Bursa	134.6	126	7.6	1.3	7.2	0.1	0
	İstanbul	37.3	23	13.3	1	7.8	3.3	2.2
	Kocaeli	22.9	12.6	9.3	2.9	7.4	0	0
	Yalova	275.5	71.7	202.8	7.2	127.2	68.4	0
	Total	**491.2**	**252.3**	**233.9**	**13.6**	**150.3**	**71.8**	**2.2**
South-eastern Anatolia	Adıyaman	3.1	2.1	0	1	0	0	0
	Şanlıurfa	2	0	1	1.5	0.5	0	0
	Total	**5.1**	**2.1**	**1**	**2.5**	**0.5**	**0**	**0**
Black sea	Amasya	1.1	0	0.1	1	0	0.1	0
	Ordu	1.3	0	0.3	1	0.3	0	0
	Samsun	3.9	1.6	1.3	1	1.3	0	0
	Trabzon	1.3	0.1	0.2	1	0.2	0	0
	Total	**7.6**	**1.7**	**1.9**	**4**	**1.8**	**0.1**	**0**
	TURKEY	**3930**	**2820**	**1086**	**85**	**943**	**78**	**4**

the Marmara, Mediterranean and Aegean regions with a total area of 3930 ha; 2628.5 ha of the total production area is in the Mediterranean Region, 759.9 ha is in the Aegean region and 491.2 ha is in the Marmara Region.

When production areas are analyzed according to province distribution, Antalya and Isparta in the Mediterranean Region, Izmir and Manisa in the Aegean region, and Yalova and Bursa in the Marmara Region are in first place (Tab. 1).

ORNAMENTAL PLANT INDUSTRY

1. Cut flowers

Production

Cut flowers are produced in the Marmara, Aegean and Mediterranean regions in open areas and in greenhouses. According to figures from 2004, production took place on a 1200 ha area (Tab. 2).

Marmara, Aegean and Mediterranean are the regions where most cut flower production takes place. In the Marmara region the main cut flowers are: standard carnation, rose, gladiolus, freesia, lilies, statice, and chrysanthemum; in the Aegean region: spray and standard carnation, chrysanthemum, gerbera, and rose; in the Mediterranean region: spray and standard carnation, gerbera, rose, gysophila, chrysanthemum, and solidago (Titiz et al., 2000). When the production of cut flowers is examined in accordance with the provinces, Izmir, Antalya, and Yalova share the first three places (Tab. 3).

Carnation, rose, gladiolus and gerbera are the most commonly produced cut flowers in Turkey (Fig. 2). Gypsophila, chrysanthemums, tulip and other cut flowers are also produced (Tab. 4).

Trading of cut flowers

Domestic trade

Cooperative societies founded in 1946 and 1955 for the production and marketing of flowers provide a significant contribution to the development of cut flower domestic trade in Turkey. These cooperatives not only supply the seeds and plants with its partners' needs in mind, but they also realize the value of their partners' products through auctions (public sale) (Titiz et al., 2000). Turkey's cut flower consumption quantity has drastically increased in recent years. When 1998 is compared to 1995, there has been a 37.7% increase (Tab. 5) (Yazgan et al., 2005). While there has been an increase in consumption, the expenditure per capita is far behind the E.U. countries.

Foreign trade

Export

Turkey started to export cut flowers in 1985. The export figure was US $ 106 000 in 1985.

In 1990, this rate rose to US $ 11.6 million which is 110 times more than in 1985. The export rate then followed a downward trend until 1996. The export rate then had a 10% average increase each year until 1998. The instability of the Turkish economy, especially in the banking

Table 2. Ornamental plant production areas in Turkey in 2004

Product group	Glass greenhouse [ha]	Plastic greenhouse [ha]	Open fields [ha]	Total [ha]
Cut flowers	64	772	364	1200
Outdoor ornamental plants	4	115	2218	2337
Indoor ornamental plants	12	102	53	167
Natural flower bulbs	5	36	185	226

Table 3. Main provinces with cut flower production (Babadoğan, 2005)

Provinces	Glass greenhouse [ha]	Plastic green-house [ha]	Open fields [ha]	Total [ha]
İzmir	15.4	230.3	160.6	411.7
Antalya	30.1	375.9	3.9	409.9
Yalova	13.7	67.2	23.5	104.4

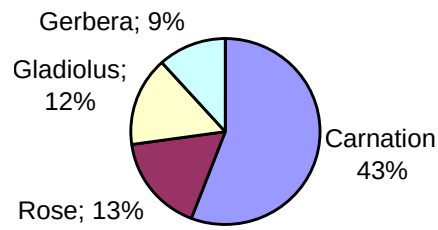

Figure 2. The most commonly produced cut flowers in Turkey by per cent

Table 4. Production areas and quantity of important cut flowers in 2004 (Anonymous, 2006)

Products	Total		Field production		Greenhouse production	
	area [ha]	production unit [million]	area [ha]	production unit [million]	area [ha]	production unit [million]
Carnation	816	706.5	276	1.1	541	705.4
Rose	198	323.4	21	0.3	177	323.1
Rose (Oil)	1661	7.7	1661	7.7	0.2	0.02
Gladiolus	48	16.9	44	15.5	3.2	1.3
Gypsophila	15	32.7	1.5	13	14	19.7
Chrysanthemum	50	43.0	13	16.5	37	26.5
Tulip	15	0.6	14	0.3	0.7	0.3
Lily	26	12.9	13	4.1	13	8.7
Gerbera	132	146.3	0.1	2.0	132	146.3

Table 5. Cut flower quantity in Turkey (Karagüzel et al., 2001)

Years	Consumption quantity (item)	Value (US $ million)
1995	163.545.040	16.956
1996	185.351.160	17.853
1997	174.912.279	16.878
1998	231.396.857	21.576

Table 6. Cut flower export in Turkey (Babadoğan, 2005)

Years	Quantity (item)	Value (US $)
1985	–	106.000
1992	101.365.146	11.078.191
1993	120.280.868	10.848.289
1994	127.436.708	10.290.917
1995	116.534.039	10.908.451
1996	158.458.447	12.093.318
1997	169.993.797	13.669.484
1998	175.378.986	13.535.776
1999	160.283.832	11.886.384
2000	102.772.087	6.689.498
2001	107.643.627	7.633.682
2002	176.805.336	11.016.909
2003	240.332.501	14.856.246
2004	272.895.335	20.170.343

sector resulted in the November 2000 and February 2001 economic crisis. This had a negative influence on the sub sector of cut flowers. A huge decrease in exports was observed. A recovery was realized in 2002 when the export rate increased 44% compared to the previous year. In 2003, Turkey's total cut flower export rate increased 34% compared to 2002, and in 2004 cut flower export value increased more than US $ 20 million (Tab. 6).

Cut flower export in Turkey (90.6% in 2004) is based on the export of carnations. Other cut flowers exported included chrysanthemums and gladioli (Tab. 7). Turkey exports most of its cut flowers to E.U. countries (70%).The most important markets for export are Great Britain, the Russian Federation, the Netherlands, Greece, Romania and Japan (Tab. 8).

Import

Turkish import figures are rather low compared with export figures because Turkey imports species not grown in Turkey. The Netherlands is the country with which Turkey has the closest connection concerning import. According to the results, the total cut flower import figure of Turkey in 1998 was US $ 628 156.

Table 7. Cut flower export in Turkey by species (US $)

Products	1996	1998	2000	2001	2002	2003	2004
Carnation	11.916.426	13.179.628	3.583.397	7.209.797	10.385.010	13.534.037	18.271.679
Rose	6.620	6.394	15.954	151.924	181.942	75.598	87.486
Chrysanthemum	32.658	12.883	4.988	5.594	3.955	1.425	14.834
Gladiolus	18.344	88	2.735.504	2.016	12.683	6.822	6.685
Orchid	20	0	8.079	422	150	0	1.080
Others	119.250	336.783	341.576	263.929	433.169	1.238.364	1.788.579
Total	12.093.318	13.535.776	6.689.498	7.633.682	11.016.909	14.856.246	20.170.343

Table 8. Cut flower export in Turkey by countries (US $)

Country	2001	2002	2003	2004
Great Britain	4.852.759	7.556.463	8.214.281	10.461.349
Russia	580.805	999.454	2.446.242	2.427.741
The Netherlands	968.736	986.942	725.659	1.406.659
Greece	88.307	515.449	1.416.105	1.300.047
Romania	0	126.570	668.916	919.204
Japan	860.042	684.754	541.078	721.799
Moldovia	0	12.800	109.110	138.418
Germany	116.636	190.559	143.183	92.981
Turkish Rep. of Northern Cyprus	24.562	178.369	281.433	70.956
Azerbaijan	351	51.084	107.396	964
Total	7.750.215	11.429.727	14.856.246	20.170.343

Analysis of Turkish cut flower industry

Turkish cut flower industry is evaluated by the help of SWOT analysis technique (Özkan and Karagüzel, 1999), and results are given in the Table 9.

2. Outdoor ornamental plants production

Outdoor ornamental plants have been produced particularly in the Marmara, Aegean and Mediterranean Regions of Turkey. Production is done in nurseries owned by public and private sectors. When an evaluation is made concerning years and the production areas, a meaningful increase can be determined. Therefore, production areas have increased from 53.19 ha in 1989 to (Tab. 2) 2.337 ha in 2004 (Zencirkiran et al., 2002; Karagüzel and Taşçıoğlu, 2004; Anonymous, 2006).

When the evaluations are taken into consideration, outdoor ornamental plant production is denser in Yalova, Izmir, Antalya, Manisa and Bursa provinces. Conversely, there is no particular registration regarding the production of outdoor ornamental plants in Turkey. According to some research estimates, production rate changes between 25–30 million items (Gürsan and Erken, 2000).

Trading of outdoor ornamental plants

Domestic trade

Outdoor ornamental plant production data has not been systematically carried out in Turkey. Therefore, it is almost impossible to have clear information on domestic trade.

External trade

After the 1990s, there has been a rapid improvement in the external trade of outdoor ornamental plants (Tab. 10). On the one hand, as of 1993, import showed an increase but outdoor ornamental plant export fluctuated for that duration (Karagüzel and Taşçıoğlu, 2004).

Countries which play an essential role in Turkey's outdoor ornamental plant import are Italy, The Netherlands, Bulgaria, France, Belgium, and Luxemburg, respectively. Japan, The Netherlands, Turkish Rep. of Northern Cyprus, Bulgaria, and Germany are the countries, which are becoming impor-tant in export (Titiz et al., 2000).

Analysis of Turkish outdoor ornamental plant industry

When the strength, weaknesses, opportunities and threats of the outdoor ornamental plants industry is analyzed using the SWOT analysis technique (Karagüzel and Taşçıoğlu, 2004), the basic characteristics mentioned below are obtained (Tab. 11).

3. Indoor ornamental plant

Production

Businesses, dealing with growth of indoor ornamental plant can be examined, in 3 basic categories in Turkey: those which produce their own production material and grow these plants until sales lengthwise, those which import production mterial and grow them until sales lengthwise, and those which import and market them.

Table 9. Analysis of Turkish cut flower category by SWOT technique

	INTERNAL	EXTERNAL
POSITIVE	*STRENGTHS*	*OPPORTUNITIES*
	1. Appropriate ecological conditions for the production of cut flowers. 2. Low – priced labor force and no difficulty concerning the supply of labor. 3. Closeness to the countries which provide a wide market 4. Existence of firms which apply relatively advanced technology and have modern greenhouses. 5. Contractual production has been properly put into practice. 6. Exporting firms have a dynamic and experienced character. 7. Governments support this category.	1. To select species in compliance with the demands of export-oriented and to increase the export share of those enterprises. 2. To support the improvement of the sector through research and development activities 3. Reorganization of the process from production to marketing 4. Protection and development of the perception of Turkey as a high quality, prestige producer. 5. To equip the domestic market to act as a safety net for bottlenecks that may occur in external markets.
NEGATIVE	*WEAKNESSES*	*THREATS*
	1. Dependence on external resources concerning production materials 2. Dependence on one product and sole market for external sales. 3. High costs of air transportation in external sales. 4. Lack of professionalism in production and marketing. 5. Due to the rapid increase in the number of exporting firms, there is a decrease in the production area for individual exporters. 6. Lack of legal regulations, knowledge, experience and infrastructure in the sustainable production of virus free materials and in the area of patent rights. 7. Difficulties in providing product materials according to the designed schedule and transporting those materials in the way they are requested. 8. Absence of qualified staff in the areas of production and marketing.	1. Efforts on product variety and market expansion require time and additional investment. 2. Inability to leave existing production habits. 3. Challenges to image and perception as a result of unconscious external sales. 4. Lack of benchmarking with competition in external markets. 5. Both greenhouse vegetable production and vegetable seedlings become more profitable. 6. Lack of ability of exporting firms to defend their rights in disputes arising either from the quality of products or from pricing in the external market.

Table 10. Import and export of outdoor ornamental plants in Turkey (US $ million)

Product group		1990	1996	1999	2001	2002	2003
Outdoor ornamental plants	import	0.7	10.7	13.8	16.9	19.6	24.6
	export	0.2	1.7	2.0	4.0	0.6	12.5

Table 11. Analysis of Turkish outdoor ornamental plants industry by SWOT technique

	INTERNAL	**EXTERNAL**
POSITIVE	*STRENGTHS*	*OPPORTUNITIES*
	1. Due to its geographical location, Turkey has an ecological variety which involves rich flora and a tropical type of cold climate by limited artificial applications. These two characteristics represent a considerable competitive advantage. 2. Demands for products of this category have been growing rapidly. 3. The labor force in Turkey is rather low-cost when compared to the European Countries with which the category is in competition. 4. Domestic resources can cover most of the production inputs, such as water sources. Thus, the category would not be confronted with an important restraint. 5. Cost of production technology renewal and improvement activities is lower in this sector when it is compared to the industrial sector and category like indoor ornamental plant which is closely connected. 6. The category is an attractive area for direct and indirect government support, as the category allows for the creation of employment	1. As the outdoor ornamental plant category combines rich domestic genetic resources and production of several species that are provided by external purchases with ecological advantages, it may become more profitable through developments in both production and marketing. 2. Organizational experiences concerning production planning and marketing network of a closely connected category such as the cut flower one should be followed in the country based organization. 3. Problems regarding accumulation of capital can be solved with the employment, support and alternative product incentive policies of the government even when their general approach is to reduce support to the agricultural sector. 4. The factor of lack of technical knowledge can be eliminated by the formation of organizational structures, the establishment and recruitment to relevant educational programs and training, and broadcasting and publication of related materials 5. Dilemmas regarding standardization and quality can be addressed through information management in the production process through the use of new technology. 6. A good relation between research and development institutions and category can be formed through strategic cooperation. In this way the necessity for experienced staff can be fulfilled. 7. Incentives for external sales may accelerate economic revival and capital accumulation. These are the factors which can resolve the problems of the sector.

	WEAKNESSES	*THREATS*
NEGATIVE	1. The government formerly produced products that the category recently introduced to the market. Thus, the category is a newly established sector with limited experience in production and marketing. 2. Generally, in small and family run enterprises, there is no capital formation to make new investments, find new markets and renew technology. 3. Production areas of the category are not assessed in accordance with ecological advantages and most of them have the dilemma of product variety. 4. The quality issue is a significant problem of the category and this issue reduces the competitive power of domestic producers against external purchase. 5. Category has no external sale oriented production planning in national terms. Besides, rented production areas restrict long-erm investments. 6. Standardization of products. Standardization is limited in the process of marketing and consumption. 7. Effective relations between the category, and the research and development sector have not been founded and enterprises are experiencing difficulties concerning the employment of experienced staff. 8. Producers are not organized on the national level and the sector has no marketing system in terms of country.	1. Although this category represents a profitable agricultural activity, until recent years, the importance of this activity has not been understood and it has been treated as a luxury product. 2. During the accession process, enterprises are under the threat of inability to meet the challenge of domestic and foreign enterprise's renewal of technology and facilities. Therefore, some serious problems regarding patent rights might occur. 3. Not having an external sales oriented production plan and lack of experience in this respect might cause huge differences between external purchase and external sale, and domestic enterprises might leave their market share to enterprises which have foreign partners. 4. Lack of knowledge and technology, and probability to lose advantage regarding the low-priced labor force after the full membership to the European Union will hinder the category concerning the competition in international markets. 5. Although it is considered short, time is an important condition for harmonization of the outdoor ornamental plant category with the new developments, but it is accepted as an important opportunity for the other sectors as well.

As a consequence of high investment costs and the necessity of knowledge concerning production, growth and marketing, indoor ornamental plant production areas and number of enterprises in Turkey are few (Tab. 2). Indoor ornamental plants are produced mostly in the Marmara (Yalova, İstanbul, Kocaeli, Bursa provinces), Aegean (İzmir), and Mediterranean (Antalya, Adana) regions (Gürsan and Erkal, 1998; Karagüzel et al., 2001).

Trading of indoor ornamental plants

Domestic trade

Approximately 3–4 billion indoor ornamental plants are produced in Turkey. The estimated production value is around US $ 6-7 million (Gürsan and Erkal, 1998; Gürsan, 1999).

External trade

While the indoor ornamental plant export was US $ 238 287 in 2000, this number increased to US $ 1 045 507 in 2005 (Tab. 12) (Anonymous, 2006 a). The Netherlands, Italy and Germany are the countries Turkey mainly deals with in export trade.

External purchases of indoor ornamental plants have fluctuated. For example in 1997 external purchase was US $ 425 803 (Titiz et al., 2000). The Netherlands, Israel, Belgium, and Italy are the countries Turkey deals mainly with in external purchases.

4. Natural flower bulbs

Production

Geophytes that are sold after being harvested from the flora of Turkey are placed in this group. Among these geophytes, the species that are predominant in exports (over 80 %) are *Galanthus*, *Eranthis*, *Anemone*, *Leucojum* and *Cyclamen* (Tab. 13). In their natural environs, the numbers of many of these species has dwindled in recent years, which causes that digging up the roots, and export of many of these species is prohibited. Some are permitted for sale only on condition that the species is also cultivated (Zencirkiran and Mengüç, 1999; Zencirkiran, 2002). As a result of these legal regulations, production areas for natural flower bulbs have increased to 226 ha in 2004 (Tab. 2). Production areas for natural flower bulbs are concentrated in the Marmara, Mediterranean and Aegean regions.

Trade of natural flower bulbs

Domestic trade

There is no record with respect to the trade of natural flower bulbs within Turkey.

External trade

Although Turkey is not the only country in the world exporting natural flower bulbs, it leads in natural flower bulb exports (Titiz et al., 2000).

Geophytes harvested from the flora of Turkey are being sold primarily to the Netherlands and other European countries such as Denmark, Switzerland, Germany, Italy, Great Britain, Bulgaria, and France, as well as to the USA and Japan (Zencirkiran and Mengüç, 1999; Zencirkiran, 2002). The monetary value of this trade varies between US $ 2-3 million (Tab. 14).

CONCLUSION

Turkey has significant potential with respect to the growth of ornamental plants due to its diverse ecological conditions and climate. However, this potential is not fully realized, particularly regarding production, marketing, and statistical evaluations according to E.U. standards.

Consequently, Turkey's effective involvement in the ornamental plant trade in which global competition is increasing will only be possible by constantly developing and adjusting to circumstances, rapidly making the necessary amendments, and developing sector-specific strategies.

Table 12. Indoor ornamental plants export (US $)

Product group	2000	2001	2002	2003	2004	2005
Indoor ornamental plants	238.287	517.306	563.522	878.194	1.299.204	1.045.507

Table 13. Main natural flower bulbs exported from Turkey (item)

Year	*Galanthus*	*Eranthis*	*Anemone*	*Leucojum*	*Cyclamen*
1981	25.173.000	12.118.000	9.334.000	14.750.000	1.299.000
1991	19.812.500	11.235.000	11.507.250	4.533.500	1.458.120
1997	8.000.000	8.000.000	9.000.000	5.000.000	2.010.000
2000	7.800.000	4.000.000	7.000.000	4.000.000	1.850.000
2004	8.000.000	4.000.000	7.000.000	4.000.000	2.350.000
2006	8.100.000	3.500.000	7.000.000	4.000.000	1.650.000

Table 14. Turkey's export of natural flower bulbs (US $) (Anonymous, 2006a)

Product group	2000	2001	2002	2003	2004	2005
Natural flower bulbs	2.229.382	1.832.576	2.285.280	2.881.404	2.922.002	2.679.251

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ROŚLINY OZDOBNE TURCJI W PROCEDURZE KLASYFIKACYJNEJ UNII EUROPEJSKIEJ

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STRESZCZENIE

Turcja będąca pomostem między Azją a Europą jest bardzo ważnym krajem z powodu swoich zalet ekologicznych, do których należy bogactwo roślin zielnych. Pomimo tego, produkcja roślin ozdobnych, która rozpoczęła się w 1940 roku, nie rozwija się tak dobrze, jak oczekiwano. W 2003 roku całkowita wartość produkcji rolnej osiągnęła 32 miliardy euro, z czego 276 milionów euro to wartość produkcji roślin ozdobnych. Oznacza to, że udział sektora roślin ozdobnych w całkowitej produkcji rolnej wynosi tylko 0,9%. Z drugiej strony, w 2005 roku całkowity eksport roślin ozdobnych wyniósł 35,6 milionów dolarów amerykańskich. Praca ta ma na celu zanalizowanie problemów strukturalnych sektora roślin ozdobnych Turcji w związku ze standardami Unii Europejskiej oraz przedyskutowanie wniosków z niej wynikających.

Słowa kluczowe: kwiaciarstwo, kwiaty cięte, ogrodowe rośliny ozdobne, pokojowe rośliny ozdobne, cebule gatunków botanicznych