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**HONEY MARKET IN THE CONTEXT OF
TURKEY–EUROPEAN UNION RELATIONS:
TRANSITION TO ORGANIC BEEKEEPING**

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ÖZET

Tarımsal üretimde verim artırmak için kullanılan yapay ve kimyasal katkı maddeleri insan sağlığına zararlıdır. Bu katkı maddeleri ayrıca çevre üzerinde kalıcı etkisi uzun yıllar devam eder, yeraltı su kaynakları ve çevre kirliliğine neden olmaktadır. Yapay katkı maddeleri kullanmadan yapılan organik tarımsal üretim giderek önem kazanmaya başlamıştır. Organik üretim tamamen kontrollü ve sertifikalı üretim şekli olup elde edilen ürünün kalitesi dünya’da kabul görmektedir. Bu konuda en büyük pazar olan Avrupa Birliği’nin izlenmesi önemlidir. Ülkemizin pazar payını koruması ancak kaliteli üretimle mümkün olabildiği saptanmıştır. Arıcılık ve bal sektörü ülkemizde ve Avrupa Birliği’nde ele alınmış ve tarımsal üretimdeki yeri anlatılmıştır. Üretim şekli ve gerekli teknik bilgilerde yer almaktadır. Ülkemiz ve Avrupa Birliği’nde arıcılık sektörünün yapısı , pazar payları , balın depolanması , satış kanalları, dış ticaretteki yeri, sorunları, ilgili yönetmelik ve tebliğler ve devlet destekleri gibi konular ele alınmıştır. Organik balın organik tarım ürünlerindeki yeri ve normal tarımın organik tarıma oranı gibi değerlendirmeler yapılmıştır. Yıllık büyüme oranları hesaplanmış gelecekteki dış ticaret payları ve ekonomideki yeri üzerinde bahsedilmiştir. Ülkemizin pazar payı üretimine göre düşük olduğu gözlenmiştir. Dünya organik tarım pazarının en az üç dört kat büyüyeceği tahmin edilmektedir. Arıcılık sektörü iktisadi açıdan değerlendirilmiştir. İktisadi temele göre incelendiğinden ekonomik veriler ve rakamlar üzerinde özellikle durulmuştur. Genellemeler yapılarak rekabet edebilirliği incelenmiştir. Teknik konulardan ziyade iktisadi meselelerle sonuca ulaşılmaya çalışılmıştır. Ayrıca verimlilik ve güçlü arı ırkı seçimi üzerinde durulmuştur. Ülkemizde koloni başına verim düşüktür. Organik arıcılığa geçiş özellikle ülkemiz arıcılık sektörünün satış ve pazarlama kabiliyetini geliştirecektir. Elde edilen ürünün sertifikalı olması ülkemiz arıcılık sektörüne pazarlama ve kalite avantajıda sağlamaktadır.

ABSTRACT

Artificial and chemical additives that are used in production to increase the productivity are harmful to the human health. These additives and its effects on environment continue for long years and also lead to the pollution of underground water resources and environmental pollution. Organic production that is performed without artificial additives is started to gaining a great importance. Organic production is totally controlled and certified kind of production method and the quality of the products which are harvested have been recognized in the world. Surveillance of European Union that is the biggest market in this field is very crucial. It has been observed that to protect of our country's market share would only be possible with qualified production. Beekeeping and honey sector is taken into consideration both in our country and European Union and explained its place in agricultural production. The way of production and required technical data is also included. The structure of beekeeping sector both in our country and in European Union, the matters such as, market share, storage of honey, sales channels, its place in foreign trade, its problems, related directives and regulations and governmental supports are conveyed. The place of organic honey in agricultural products and proportion of conventional agriculture to organic agriculture are also considered. Yearly expansion rate are calculated, its market share in the future and its place in the economy are pointed. It is observed that our country's market share is low compared to the production. Predictions are that global organic agricultural market will grow three to four times at least. Honey sector is evaluated from financial point. Because it is interpreted on economical basis, economical data and figures are handled specifically. Generalizations are used to investigate competitiveness. Economical matters, rather than technical subjects are discussed to end up with a conclusion. Besides, the productivity and strong bee strains selection are stated. Productivity per beehive in our country is low. Transition to organic beekeeping will improve marketing and sales ability of our country's honey sector. The acquired products with certification will provide marketing and quality advantage to our country's beekeeping sector.

INTRODUCTION

Ecology, to protect the natural balance, sensitivity to the environment, natural and balanced diet, etc. are occupying the recent agenda at most. Parallel to this, peoples' demand for natural food is increased. Foods that contain unknown additives that may be hazardous, are now threatening human health. Meanwhile, to increase the productivity, producers keep on using pesticides and fertilizers. Suitability of livestock and agricultural fields to ecological conditions that are used for food production, has also gained importance.

Recently, nutrition demand of living beings is continuously increasing, as human need for food is evolving. Ecology is totally a natural balance matter, and ecological production is only possible by providing the suitable environment. Ecological production is not possible where conventional agriculture is performed. For example; in an enterprise who wants to make organic food production, livestock also needs to be fed with foods that are produced under organic conditions, to be far away from conventional agricultural fields and main motorways. Primary reasons for transition from traditional agriculture to ecological agriculture are human and environmental health. Consumption of products with artificial hormone, additives lead to many diseases. Today, communities with environmental sensitivity, prefer organic products. Pesticides and fertilizers that are used to increase productivity do not stay only in the soil, but transits to the livestock with plants and its effect on the soil staying many years cause to grow unhealthy products and to pollution of underground water sources and environmental pollution. Organic or ecological agriculture is a full time controlled and certified from production to consumption kind of producing method. In the world, developed countries are both producer and consumer. Due to environmental consciousness, these groups prefer organic products so USA, Japan and European Union Countries (EU) gain importance of potential market. For Turkey who produce organic products, surveillance of European Union and other countries' as target market and outer purchases is very important. Germany is ahead of other countries who makes export of organic products in the European Union, meanwhile it is the biggest country which imports organic products.

Today, Turkey is exporting organic products to 25 countries¹. Ecological agriculture and stock-breeding are among the best tools for increasing foreign currency reserve. Our country has the property of eco-strategical importance, being rich of vegetation and geopolitical advantage of closeness to the EU member countries.

One of the most important problems of Turkey considering deficit and the proportion of exported products to imported products is to our disadvantage. The reason for that is a lot of exported industrialized substances can be produced by inputs based on import. Export based on organic agriculture is provided by 100% local support, contribution of our country to foreign currency reserve is more than the other substances. Organic food market is evolving in developed countries. European Union which will become 456 million of population with new participants – one out of every 14 people in the world is living in the EU-², the profile of EU will change, national income per person will become around 21.100 Euro³ (4.5.2004), meanwhile pressure for price will increase for developing countries, competition will get harder. Naturally, harmonization of regulations in international trade of ecological products came into the agenda. In our country, organic food production targets mainly export. In Turkey, production of organic foods is dependent upon the other countries' demand and production is much more based on order. Total organic product export for the last year was 6.931.770 kg. , value is \$18.528.588.⁴ Standards and regulations that are done by EU, where most of the outer sale is done, directly bind exporting countries. From this point on, governmental and private organizations' follow up of developments and enterprise to get the regulations binding is important. Regulations about the organic agriculture is applied since 1994. At 2004, new arrangements are added and it was developed. Another advantage is that it would get more easy both administratively and technically by GAP and irrigation projects and having very large agricultural fields (in our country there is 103.190 hectare organic agriculture, and this is 0.4% of the total agricultural field)⁵. As it can be seen, our country with its rich ecological structure is among suitable, important countries in the world to the organic agricultural production. Our country is situated as the biggest

¹ Eagean export groups

² http://epp.eurostat.cec.eu.int/cache/ITY_PUBLIC/3-31082004-BP/EN/3-31082004-BP-EN.PDF

³ <http://www.saglik.gov.tr/default.asp?sayfa=detay&id=875>

⁴ Eagean export groups report

⁵ http://www.organic-europe.net/country_reports/turkey/default.asp

producer and exporter among the near east and North African geography.⁶ The coordinated work of all related establishments and private sector, exporter firms, producers and public institutions will provide a new source and expansion and will contribute importantly to the lessening of unemployment and to the foreign currency reserve. After giving the importance of organic food for the world and for our country, the place of transition to the organic beekeeping is very important in organic agricultural economy of our country. In this thesis, beekeeping in our country, in the World, and in the European Union is investigated and its place in the country's agricultural economy is explained. Organic beekeeping sector in our country and in the EU is taken into consideration. Knowledge about the principles of organic honey marketing and production is conveyed.

At the first part, the structure of beekeeping sector in our country is explained. The ways of production of honey, beekeeping, and technical details are given. The ways of storage of produced honey, if needed stocking, marketing channels in case of sale, its place in the foreign trade are being told, the problems of sector and governmental support is transmitted. In the second part, honey market and beekeeping sector in the world and in the EU are conveyed on the basis of countries. The production of countries', the bee colony counts they have, efficiency are taken into consideration. The countries which are effective in the determination of the price of produced honey, and price are considered. Honey marketing ways, special sale points, and its place in the foreign trade for bringing honey to the consumer are described. In the third part, the transition reasons to the organic beekeeping, transition process, and the rules that the enterprise should obey are considered. Organic beekeeping, organic honey marketing ways, organic honey sales of our country and the importance of trademarking in the foreign trade are pointed. Certification, control procedures, costs and competition are also conveyed.

In the fourth part, organic beekeeping markets in the world and in the EU, total organic honey sale, effective countries in the organic honey production are taken into consideration. Organic honey trade and production in EU is investigated on the basis of countries. The reasons of preference of organic honey and food, the regulations and arrangements in EU are conveyed. The place of organic honey in the organic agricultural

⁶ http://www.organic-europe.net/country_reports/turkey/default.asp

products and the proportion of normal agriculture to the organic agriculture are considered, the yearly expansion proportions are calculated, foreign trade in the future and its place in the economy are pointed.

PART I

1. STRUCTURE OF BEEKEEPING SECTOR IN OUR COUNTRY AND ITS PLACE IN THE AGRICULTURAL SECTOR

1.1. Structure of Honey Sector

Beekeeping is broad agricultural action which has important differences regarding economical structure and technical properties. With respect to the 2005 recordings of Food and Agricultural Organization of The United States (FAO), our country is the second biggest colony count as 5 million in the world.⁷ Honey is a totally natural food which is produced by the sap gathered by the bees from plants, consistent, stable, with high energy, and high dietary value, and having some healing properties.⁸ Honey is very important for our export. The 10 thousand tons of 70 thousand tons of that is produced in our country is exported. Just by honey production, beekeeping contributes more than \$100 million to the national income with the local consumption⁷. Procedures that are used for export are totally for increasing the quality and protecting the honey sector. Regarding honey, being conscious about procedures that are used by General Export Directorate, and autocontrol that are applied by the enterprise in this manner, increasing the production quality is quite important.

Honey notification Turkish Food Codex Code 17.12.2005- 26026 notification no: 2005/49⁹. The purpose of this notification is the preparation of honey regarding its technique, processing, stocking, shipping, and the properties that it should have at the marketing stage.⁹

Honey is acquired by two ways with respect to its source.

- Flower or nectar honey (acquired by plant nectar)
- Secretion honey (honey from secretion of alive parts of a plant or of plant absorbent insects (Hemiptera) that live on the alive parts of a plant)

⁷ <http://www.zmo.org.tr/etkinlikler/6tk05/036cetinfiratli.pdf>

⁸ <http://www.ardahanaricilik.gov.tr/pages.asp?id=20>

⁹ <http://www.kkgm.gov.tr/mevzuat/khk560/Kodeks/Tebliğler/2000-39.htm>

According to the production or presentation to the market;

- Honey with honeycomb (honey prepared from unused nest aimed from pure honey wax or stocked inside the eyes of honeycomb that are done by bees or sold as glazed up to a huge degree)
- Filtered honey with honeycomb (honey prepared from honey parts with honeycomb inside leaked honey)
- Leaked honey (honey gathered from glaze that is acquired from leaked honey and leaked from honeycombs lacking honey)
- Pressed honey (honey that is acquired by heating directly or not going over 45°C of honeycomb without babies and pressed)
- Filtered honey (honey that has lost its pollen ingredient due to removal of external substances by filtering)
- Bakery honey (honey without a special natural smell or taste or started to fermentation or fermented or processed under high temperature, suitable for industrial use or suitable for use as ingredient to the other foods)
- Frame honey (honey that bees make directly into the honeycomb or artificial honeycombs are located)⁹

In our country, while colony counts get increased, efficiency in honey production is still low. In our country, honey production rate is 15-16 kg per beehive. Turkish Beekeeping organization targets 40 kg. level. There has been great downfalls in our export. According to the 2005 numbers, honey produced in our country was 73.929.000 kg.¹⁰ exported part was 1.669.187 kg. inreturn foreign Exchange input 4.651.124 \$ ¹¹, according to 2004 recordings, even though the same amount of honey was produced, exported amount was 3.472.600 kg. inreturn foreign Exchange input 10.358.232 \$. As can be seen, there has been more than 50% decrease in the amount of exported honey. In the year 2006, it is identified that this downfall has continued. Exported honey consists natural filtered honey and honeycomb honey up to a huge degree.¹¹ While in Turkey, consumption per person is 0.8kg. , in EU countries yearly honey consumption mean is 0.6 kg.¹² In our country,

¹⁰ <http://faostat.fao.org/faostat/>

¹¹ Ege İhracatı Birlikleri

¹² http://www.tagem.gov.tr/HABERLER/mprt/Veri_degerlendirme.pdf

when it is considered that approximately 400 thousand family gain money from this sector, both its contribution to the local economy and according to the foreign Exchange input, beekeeping and honey sector is an important agricultural field.¹³

1.2 Planning of Honey Production

Beekeeping is an agricultural production method that can be done by anyone without being dependent upon the soil and brings income in the short time; its income bearing opportunity for villagers who live inside and next to a forest, employment bearing property, and protecting natural balance and bringing income are what makes it socio- economically important.¹⁴ Today, by means of bees, 75 thousand tons of honey and 3700 tons of honeywax is collected and transformed into product. In addition, its contribution to the economy is pretty high by means of pollination.¹⁵ In consideration of the secure honey production, according to EU's 96/23/EC numbered directive¹⁶, by the help of 41 Agriculture City Directorate since 1999, honey action application instructions consisting of remainders of honey follow up was operated by ministry since 2002. By these instructions, honey producers and enterprise workers were educated, Honey Producer Permit Identification card was given to the honey producers and registered producers to where production, process and marketing are under control.

In our country, in general, beekeeping is in the form of travelling beekeeping and scientific beehives are widely spread. In general, using pesticides in may causes a 50-75 % colony count decrease and going to june starting big nectar flow with powerless colonies, big downfall in the honey efficiency that must be gained, it also causes breakdown in the inside balance of the beehives.¹⁷ For this reason, identification of place, planning of yearly and seasonal production and following the floral structure is very important for beekeepers. Starting with powerful colonies and young, qualified queen mother bees to the season comes as the biggest element in the possible efficiency. In Professional and technical beekeeping, follow up of flora (plant formation) and mobile

¹³ http://www.tagem.gov.tr/HABERLER/mprt/Veri_degerlendirme.pdf

¹⁴ Ministry of Agriculture

¹⁵ www.tarim.gov.tr

¹⁶ http://ec.europa.eu/comm/food/food/chemicalsafety/residues/control_en.htm

¹⁷ <http://www.espiye.bel.tr/html/tarim.html>

colonies in return is an important rule. Without mobile beekeeping, gaining money from beekeeping is impossible. Turkey, is very suitable and rich regarding climate, nectar and pollen producing natural and culture plants. Floral follow up and mobile beekeeping bearing a huge income if planned ahead and acted knowledgeable. For this aim, besides all it is a must to use easy to handle, modern beehives that has the best ventilation. In today's world, moving colonies is the utmost cost bearing regarding the mobile beekeeping. So, having colony counts more than a specific number may be economical or beekeepers who has less count of colonies may come together to form a union for move in order to decrease the moving costs.¹⁸ Beekeepers' target who wants to get high efficiency from crop should be to increase the number of bees in a beehive as possible as it gets till the big honey harvesting season. Beekeeper who can make this number as 80.000-100.000 in the honey gathering season, may produce as much as he/she wants. How low is this number determines the honey that bee would bring and stock. Big honey harvesting season as it can be described as nectar flow becomes more dense, covers a duration of 10 to 30 days. In this season, nectar that is produced by plants becomes the highest. This duration changes with respect to climate, season and to the geographical location. Bees can only stock honey that remains after their daily need to the beehives. If we divide the total beekeeping actions into seasons, honey gathering season covers only a little bit of time.¹⁹

While choosing beekeeping place, a place with North closed without bad winds, with clean water source, and away from poisonous plants should be chosen. Data like meteorologic information, raining status should be gathered, while choosing area, cooperation with the expert agricultural personnel to discover is very important. Honey harvest starts with May in some warm areas and it lasts around October with respect to floral structure and climate. In these times, honey that becomes ready for marketing conditions packaged and transformed to the depots. In November, bees that left enough food are left for winter sleep and left for winter rest.²⁰

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http://www.tarim.gov.tr/arayuz/6/icerik.asp?efl=aricilik/aricilik.htm&curdir=\uretim\hayvancilik\aricilik&f l=../yetistiricilere_bilgiler/ana_ari_yetistiricilik/ariyetistiriciligi.htm

¹⁹ <http://www.aricilik.gen.tr/anasayfa.html>

²⁰ http://www.amasyatarim.gov.tr/tarim_takvimi.hth

1.3. General Status and Structure of Honey Producers

Beekeeping is based on very old ages, known by humans, and a agricultural job done by people who live in the villages and next to forest or inside a forest. With todays' developing technologies, next to family businesses, enterprise that can compete in the outer markets by increasing their marketing and sale opportunities , gain important steps towards gaining power in international markets and trademarking. When the colony count in our country is taken into consideration, and also having low level of honey production export did not reach to the interested target. Enterprise, to come to the wanted levels requires for quailified workers and reaching the job standards is the utmost important thing.

Commission of Job Standards describes beekeeping as this:

Beekeeper is the qualified person who can prepare beehives with bees, producing mother, son and bee products , nursing bee colony, feeding, doing harvest of bee products, caring the tools and equipmant of beekeeping.²¹

In Turkey where there is a powerful production potential inside very different regions and large production areas, beekeeping demonstrates a complex and disseminated structure. Besides small numbered big producers, beekeeping as a small family matter and a second hand job, could not finish its foundation in public and private sector in our country.²²

Beekeeping have a special importance for the half of the population who lives in villages. For citizens who do not have any land, or with less land, and who lives inside the forests and forestside villages, beekeeping looks like the easiest job and revenue possibility. Because beekeeping is not dependent upon the soil, for beginning, without a need for capital, eveybody as man-woman, young-old, educated-uneducated can do and can bring income less than a year. Because of these properties and since the cheapest employment is there, it is one of the important agricultural actions.²³ Yearly honey and honeywax production brought 140 quadrillion liras to our national economy as of the year 2000 production rates and prices. This contribution can be increased to a 2-3 times as

²¹ <http://www.iskur.gov.tr/mydocu/standart/010.html>

²² <http://www.aricilik.gen.tr/arastirma/surdurulebilir.html>

²³

http://www.tarim.gov.tr/arayuz/6/icerik.asp?efl=aricilik/aricilik.htm&curdir=\uretim\hayvancilik\aricilik&fl=../yetistiricilere_bilgiler/ana_ari_yetistiricilik/ariyetistiriciligi.htm

increasing the production of honey per beehive. It is considered that When contributions of beekeeping to the plant production, total contribution from this action becomes 500 quadrillion liras.²⁴ Contribution of technical beekeeping with its applications gets larger and larger. Due to the ecologic and socio- economic structure of Turkey, beekeeping can be done all around the country but Eagean, Black Sea, followed by mediterranean regions are the most important regions for beekeeping regarding beehive existence and production allocation. Almost half of Turkey's honey production is acquired from these three regions. With respect to honey production, the first ten cities are following; Muğla, Ordu, Adana, Aydın, Sivas, Antalya, İzmir, İçel, Erzincan ve Samsun. And half of the honey production is gathered from these cities.²⁵

1.3.1. Income Status of Beekeeping Enterprise

Beekeeping is an an additional income bearing element for many families in rural areas, producers for hobby and technically formed enterprise. In addition, there are producers of beekeeping materials, packaging and export marketing called as bottling in the market. Number of beekeeping firms is 80, number of people who work for beekeeping is 140 thousand, Professional beekeepers are 40 thousand, yearly production is around 70 thousand tons, and the size of market is 700 million YTL.²⁶ Number of firms that do export is 30, yearly foreign Exchange input for these firms is \$4,7 million.²⁷ When the size of the market is considered, export proportion is pretty small. Number of families in Muğla who does beekeeping is 5000. Total beehives are 546.662, mean yearly honey production is 12.000 tons. Number of forest village development co-op supported by Orköy with credit since 1976 is 10. Total amount for supporting these co-ops that is paid as enterprise capital+ fixed investment credit 8.6 trillion TL. as of today's worth. ²⁸ Yearly production of our country and big amount of EU pine honey export (almost 90% of it) is provided by this area. There are applications

²⁴ Tarım Bakanlığı verileri

²⁵ <http://www.tarimkredi.org.tr/modules.php?name=Content&pa=showpage&pid=51>

²⁶ DİE

²⁷ Eagean Export Unions

²⁸ <http://www.mugla-cevreorman.gov.tr/aricilik.htm>

in our country that are used by many city and town agricultural directorates regarding direct income support.

According to the recordings of Turkish Beekeeping Union (TAB), in Turkey there is 153 thousands 662 family beekeepers, with 4 million 160 thousand beehives. 74 thousand 500 tons of honey is produced and 300 million YTL is acquired yearly. While Turkey is at the first five regarding the existence of bees, only in the first 5% in honey production due to inefficiency. The reason for this downfall is, sending fake honey produced by corn syrup, glicose, and honey enzyme to Germany who is the biggest buyer. There was many bad consequences of this return of goods. In 2004, total 288 thousand 594 kilogram honeycomb and filtered honey were returned to Turkey due to commercial glicose or sugaredness.²⁹ As a result of the tests that are done to these returned honey, suitable ones for turkish food codex were given to the local market and others were exterminated.

Beekeeping as disseminated specifically to forest villages of Çatalca which is close to İstanbul, continues in 20 villages with 130 farmer and with 2500 beehives (as is known). Approximately, 70 ton quality honey is produced and given to the market yearly. The contribution of it to the town economy is around seven hundred billion.³⁰

With an easy calculation, if we calculate with the knowledge of 10YTL (6.5 \$) honey income per kilos, 74 thousand tons of honey contributes to the country economy as 740 million YTL (\$477 million) yearly, and this is \$3200 income per family enterprise. This is quite under the expected income level.

To increase the efficiency per beehive is very important regarding the development of beekeeping sector.

1.4. Honey production and stocking.

The purpose of Honey Notification of The Ministry of Agriculture and Rural Affairs 2005/49 ³¹, is the identification of the stages that preparation of honey with respect to its technique and hygenic, processing, stocking, transporting, and marketing

²⁹ <http://www.tvhb.org.tr/basindan/id30032005.html>

³⁰ <http://www.catalca.gov.tr/ekonomi/ekonomi.htm#hayvancilik>

³¹ <http://www.tarim.gov.tr/mevzuat/teblig/baltebligi.htm>

should obey. This notification dated as 16/11/1997 and was prepared according to the “Turkish Food Codex Regulation” as appeared in Official NewsPaper numbered as 23172. To protect the natural ingredient of honey, it should be kept without any additives. Leaving honey around for too long and heating it changes its color with respect to its physical property. Classification of honey is done according to its production and marketing or according to its source. Honey can be classified as filtered and with honeycomb with respect to its production and marketing; and flower and secretion honey with respect to its source.

Honey nectar (honey core) that is picked from flowers of plants by bees changes its structure chemically inside the stomach of bee and then stocked in order to be used as food in the sections of the honeycomb. Nectar as having 20 – 80 % of water according to the type of the plant type, after it is stocked in the sections of the honeycomb , water proportion is decreased to 17-20 % level and their top is glazed. If at least the half of the sections of existing honeycombs are glazed, the time for honey harvest has come and honey became mature. Honey harvest is done specially in the morning hours when the bees are more peaceful. Beehive is opened by giving smoke. Bees of glazed and honeycombed frames are lowered to the lower level(sitting) or shaken off. While doing this, quick but unpanicked work is a must. Honeyed frames are taken to the closed top honey safes and are transported to the closed place. While doing this, honeyed frames should not be bruised and honey should not be spreaded around.³² Before honey filtering, room temperature should be around 25- 30°C to achieve teasiness of filtering and flow. Glaze which is on the honeycomb of the befiltered frames are taken with glaze knife or glaze comb. Honey is taken out of the unglazed honeycombs by hand or by centrifugation (for honey filtering) that is operated with the electricity. In abroad, glaze taking and honey filtering is done mostly with full automatic machines. Filtered honeycombs are put on to the sitting in order for the bees to clean the dirt that remains in the honeycombs around evening. From these frames, clean and usable ones can be kept for spring and can be given to the beehives.

Honey that is acquired by the honey filtering machine, by using a screen which gets thinner inside by each layer , is cleaned from wax pieces and from external substances. In

³² <http://www.tarimkredi.org.tr/modules.php?name=Content&pa=showpage&pid=58>

spite of this, small pieces and air bubbles blur the color of honey. For this, honey is taken into the rest tank and it is put to the rest. Small wax pieces and air bubbles are gathered at the top as foam. Foamy part is stocked in a separate place for being food for bees or for vinegar and liquor making. When honey settles down and gets unclouded, it can be packaged. Since honey is made of various structural components, it changes structure even while stocking. These changes are in the form of crystallization, color thickening, increase in the acidic level, increase and decrease of the sugar types inside honey. In addition, increase in the honey stocking duration and heating increases the HMF (hidroksi metilfurfurol) value. Since the crystallization of honey is at 5-7 °C, souring is at 10 °C, if not heated then the filtered honey should be kept under 5 °C. In order to make the crystallized honey to come to its original position, honey container is located inside a container with hot water and this way honey gets loosened. Honey container should never be touched with the direct heat. Loosened honey may become crystallized again. Honey has been described with "TS 3036" numbered honey standard till 22nd of October 2000. However, from this day on it is described with the Turkish Food Codex 2000/49 numbered "Honey Notification" regulations written in 24208 numbered Official Newspaper.

Some of the rules given as followed by the sixth entry of Honey Notification. According to this;

- No other substance can be added to honey and no substance from inside of it can be taken away,
- Honey can not contain commercial glicose, naphthalin and starch.

In the related notification, there are comprehensive list of descriptions and explanations regarding packaging, labeling, and other topics. For this reason, anybody who is interested in honey should know "Honey Notification" and should act accordingly.³³ Honey is packaged as filtered and with honeycomb as listed under food notification. Filtered honey should be put into tins at least after one night of rest. Bought tins should be taped from top and inside and outside of the tin should be with yellow lac. On one side of the tins, there should be written beekeeper identification information (registered city union number, beekeeper enterprise number, harvest date and harvest area, type of honey,

³³ <http://www.tarimkredi.org.tr/modules.php?name=Content&pa=showpage&pid=58>

and tin number)and tins need to be numbered. In order to eliminate the crystallization that occur in the stocked honey, honey should never be thawed. Because, to protect the nutritional value and quality of honey, water bath should be maximum at 45 °C and should be controlled. Processed honey should be kept between 18 °C and 24 °C, it should be kept away from the heat source and it should not confront any heat changes. Not processed honey should be kept under 10 °C.³⁴

1.5. Honey Production Cost and Determination of Price

In related enterprise, production cost is one of the main important elements in price determination, either to use the cheap inputs that are used while production(this lowers quality) or to increase efficiency in production and lower the related costs.

Some enterprise, supply costly productions under their own brand with outsourced productions. Beekeeping is done by a large area and by many families in these different areas. For this reason, costs like production, transportation, stocking, and packaging become the main elements in determination of price and price is determined with enterprise expense plus revenue. Honey is a food, hence where does it come from and quality is important while determining the price. Sunflower honey at Trakya Region, pine honey at Muğla and plateau honey from Blacksea Region are with different costs and quality.

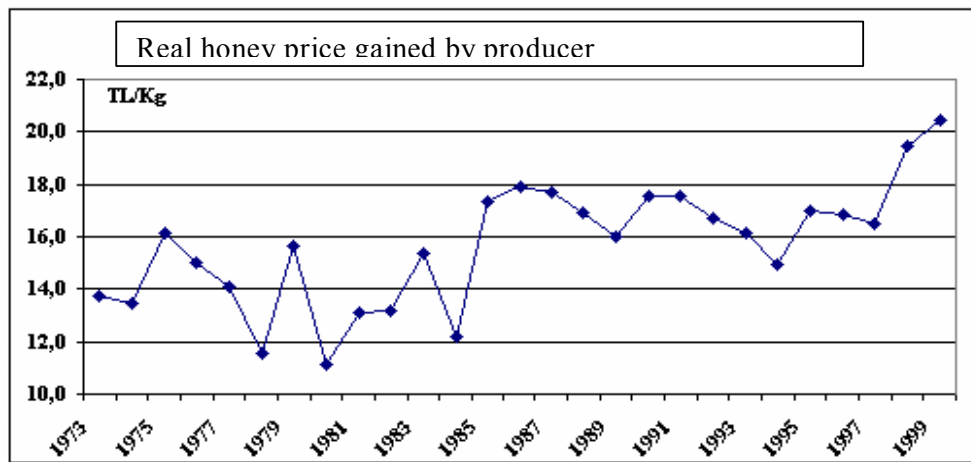
Today, the problem of high production cost as of many sectors, is valid for beekeeping and high costs with leaving the beehives by themselves gives nothing but high costs which causes in low revenue.

For this reason, lowering the costs per beehive is available only by increasing the efficiency and having some side crop like bee milk and pollen.

In the following table, price with respect to each year can be seen.

³⁴ <http://www.binbircicek.com/urun/File/aricinin%20kalite%20rehberi.pdf>

Figure 1.1 Honey price with respect to years in Turkey



Source: Ardahan Agricultural Directorate

Producers can sell their merchandise to the market only by producer pay slip and through the wholesalers. When we look to the year 2006 export counts, honey with honeycomb is approximately 4,67 \$/kg. , filtered honey is \$2,42 /kg. and general honey as \$2,75 /kg. priced and given to the reel market from this price. (Eagean Exporter Unions) Honey that is produced for 2005 is exported for \$203 million . For this reason, beekeepers prefer more direct way of selling their merchandise through relatives and friends. In addition to this, by e-trade, there are some web sites which bring buyer and seller to the same place and this place is much open to bargaining.

Today, good and quality honey is sold for 15-20 YTL to the end consumer. Problems that can be seen in any sector are seen here also and revenue is lowered every other day. Representatives of producers claim that the cost of one tin of honey is 65 YTL. Normally, they can be sold for 75 YTL by producers but if some is left at the hand of producer the price is lowered to even 60 YTL. Also, due to cheap honey that comes to our market from out of the country uncontrolled, beekeepers who produce honey without fraud can not sell their produce for its worth. Due to the price difference, consumer prefers cheap honey. And this causes unjust competition regarding the rightful beekeeper.³⁵

Producers take filtered honey support and mother bee support from Ministry of Agriculture. This support helps to pay for the general expenses. Determination of the

³⁵ <http://izmiraricilarbirligi.com/html/Haberler.asp?haber=devam&id=33>

price by the hand of the government may end up with demand from beekeepers. By this way, squash of producers under the price competition may be prevented.

1.6. Strategies of Honey Marketing

Beekeeping which is needed to be considered regarding marketing and whose produce is disseminated too much, needs to be described well especially for outer markets and needs to be considered. Floral structure of our country consists 15 thousand types of plants with honey.³⁶ 35 % of flora is endemic i.e. grows only in that region. The special property of our honey and the effect of it on the human health should be considered well and should be explained in the fairs and special importance should be given to its difference.

Undersecretariat of Foreign Trade announces merchandise and crop demand in the related countries through web sites. In the same way, export unions and KOBİ's web sites, information about the firms with demand for merchandise is announced. Web sites like these are export based and outer demands are announced. Throughout our country agricultural web sites present marketing opportunities with the condition of being a member. Increased demand for internet based sale in the world may cause potential sale and marketing type in our country. Entering to the Food expertise and agricultural merchandise fairs that are done in and out of our country with the organization of Undersecretariat of Foreign Trade is a good marketing strategy for beekeeping sector that brings buyers and sellers together both for benefiting from the incitement and for introduction as in the other sectors. Before entering to the fairs, necessary infrastructure and certification, brochures and catalogue, information and documents that cover crop description should be prepared, be brought to the interested people, and should gain trust. We can give marketing of Anzer Honey produced at the East Blacksea plateaus in our country as an example. Information like amount of honey that is produced at the region, count of beehives are presented to sale as labeled and packaged by doing crop analysis. In Anzer plateau beekeeping is done with 1000 beehives and 500 kg. crop is taken. Determined price for the season of 2005-2006 is 380 YTL/kg.³⁷ Honey that is produced

³⁶ <http://teknikaricilik.blogspot.com/2006/05/kemizdeki-balli-bitkiler-zenginlii.html>

³⁷ <http://www.anzerbali.com/>

in the other regions is sold for 10-15 YTL per kilos. What makes Anzer Honey different is nothing more than the floral structure of the region. The benefit of honey that is produced in the special endemic flora of the other regions regarding health should be considered and introduced. Important duty remains for our newspaper business. News coming from EU about the returned honey caused downfall in the sale. Campaigns related with the quality of honey that is produced in our country should be started and should be supported both by inside and outside of the country.

1.6.1 Direct Sale

It is the sale that mobile beekeepers prefer. Consumers that become happy with the quality of honey give order for the next year by the help of relatives and friends. Profit margin of producer is very high due to the advantage of price. Disadvantage of this kind of sale is that amount of sale is only as 2-4 kg. There are difficulties due to not having a special sale place. This kind of sale is seen very rare in the other sectors. Producer can do direct sale only by this way but since there is no invoice, there is no other way of reaching the consumer.

Honey that is sold next to the roadways is included in this group. It is preferred due to the high profit margin. Crops that are sold through wholesalers and export firms are due to necessity. Consumers also believe that crop that is sold in places like these , is much more natural than others.

1.6.2 Mid Wholesalers

Producers may sell to the wholesalers in return of the producer pay slip, officialy. In this case, price lowers too much. Advantaged side is , stocks at hand may be sold like 20-25 kg. Sale that is done through web sites are considered this way. For example, sale that is done through the notices of the web sites are these kind of sales.

Price is wholesale price and there may be place for bargaining. Producers prefer this since they can sell this way the stocks that they have. Since they enter to the next honey season, the stocks that they have may be altered to money.

Even though there is not a certain number for this kind of trade, we can assume that they are 5-15 % of the total wholesale. It is a secure type of sale and marketing type. This also includes sales to the exporters and enterprise that makes direct sale. Enterprise buys in the areas where producer is, by making yearly agreement with producers regarding their sale capacity. These firms have also their own produce. As in every other sector, produce by outsource is very common in the honey sector. Many firms cannot meet their own need with their crop and they sale the stuff under their own name after they buy from outside. Honey that is bought this way, is made through yearly agreements.

1.6.3 Chain Stores

This kind of sale can be done by organized enterprise. Crop should be branded. In this kind of sale, firm agrees for a certain price and sells the branded crop in return of the shelf price. If high sale numbers are reached, it can be a good type of sale. Shelf price is under quota in some terms, if not reached to the expected sale numbers, firm agreement is suspended and shelf price is not returned. In this kind of sale, a comprehensive introduction is a must. In the sale place, related information about the crop can be shared with the consumers as of rayons and surveys can be done. Enterprise who wants trademarking generally choose this way. Cost is high. Today, in the well known chain stores, they need to pay high shelf price to be able to sell crop. Also, they pay for the sold merchandise deferred.

Due to high costs, profit is possible only for reaching high sale numbers. Today, chain stores control retail sector.

In this group, since the prices are kept at a very low level due to competition, producers may confront with lowering the price coercion.

1.7. Honey Sale and Its Place in the Foreign Trade

Our country is very lucky for beekeeping considering natural resources like large floral areas, suitable seasons for flowering, topographical structure, country flowers with high honey efficiency, industrial plants, locust tree, chestnut tree, linden tree, redpine. Honey production is 70.000 ton, mean honey output per beehive is around 16-17 kg.level. Our country with having %5,7 portion in the world honey produce, counted as second regarding the beehive number in the world, at the 4. regarding the honey produce, is not full capacity of the honey output.³⁸

Turkey sold 12 thousand tons of honey to EU countries and gained 23.8 million dollar foreign currency in 2002. In 2003, Turkey sold 14.940 tons of honey and gained 32.834 thousand dollar foreign currency input to our economy.³⁹ After EU countries, the biggest export is to the America, and Arabian countries. World honey produce for 2005 is, 1,381,404 tons.⁴⁰ Produce of China for 2005 is 305 thousand tons. China answers to the 22,08 % of the world produce. According to the World Agricultural Organization (FAO), year 2005 produce is 73,929 tons and our country answers 5,35% of the world honey produce. With respect to the year 2004 numbers, FAO exported 5,686 tons of 73.929 tons of our produce and provided \$16,329 thousand dollars foreign currency reserve input. Hence, our country can export 7,7 % of the produce and the remaining 92,3 % is given to the local market. In year 2004, 384,389 tons of honey was exported in the world, its worth is \$ 862,525 thousand \$. According to this, our country achieved 1,89 % money worth of the world export total.

Regarding the world trade, our country provided 1,48 % of the world total kg wise. Our country sells exported honey for \$2,87. Yearly produce of China for 2004 is 308,987 tons , export is 82,492 tons ,value is \$92,837 thousand \$. So, China sells one kg of exported honey for \$1,12, exports 26,7 %. China does 10,8% of the world export honey sale.

³⁸ <http://www.tab.org.tr/index.php?sayfa=genel&id=6>

³⁹ http://www.tagem.gov.tr/HABERLER/mprt/Veri_degerlendirme.pdf

⁴⁰

<http://faostat.fao.org/faostat/servlet/XteServlet3?Areas=862&Items=1182&Elements=51&Years=2005&Format=Table&Xaxis=Years&Yaxis=Countries&Aggregate=&Calculate=&Domain=SUA&ItemTypes=Production.Livestock.Primary&language=EN>

Germany imports more honey than our produce by itself. Imported honey for 2004 is, 88,958 tons and worth \$230,704 thousand .⁴¹ Germany imports 120 % of our the total produce. In Germany, 2,4 million Turks make the 2,9 % of the whole population.⁴² In the year 2004, honey export that our country made to Germany is; 1,409,394 kg, worth \$4,516,965.⁴³ Our country provided 1,58 % of Germany's export as in kgs, 1,96 % of worth. This shows that our consanguinities who still live there, consumes honey that comes from other countries.

Total EU production is 328,141 tons, imported honey at the same year is 210,897 tons and worth \$591,911 thousand.⁴⁴

As can be seen, our honey sale is based on local consumption, and its sale to other countries is not yet in the expected level. A valuable service of beekeeping is the increase in the productivity due to pollination of bees and hence the contribution of this to the other agricultural crops by means of income increase and trade is very important. According to a study which was done in USA; approximately as of \$10 billion; 1/3 of the \$30 billion crop that is acquired from 40 different plant types, comes from honey bees.⁴⁵

1.8. Problems of Honey Sector

This sector has problems in the areas like marketing, production, and technical subjects. Besides all, unregistered producers who are scattered, need to be known. Regarding this, the most important duty is of village headman, local administrators, and town agriculture directorates. These people should be registered, production and marketing type should be identified, registrations should be arranged, and produce should be controlled by the local beekeeping unions. Crops which would be taken out of the city should be known by the beekeepers' unions. In this way, honey traffic in our country, production areas, outsource produce by the exporter enterprise would be identified as certain as possible. These data should be kept and should be continuously updated.

⁴¹ Fao recordings

⁴² <http://www.byegm.gov.tr/yayinlarimiz/ANADOLUNUNSESI/164/T20.htm>

⁴³ Eagean export unions

⁴⁴ Fao recordings

⁴⁵ <http://www.tarimkredi.org.tr/modules.php?name=Content&pa=showpage&pid=51>

Production stages should be controlled with caution and fake honey topic should be taken out of our agenda. To all enterprise who deals with honey even there is only one beehive in his/her garden, technical information should be inquired and necessary infra-structure should be provided by local beekeeping unions. By this way, beekeeper unions should increase their number of members, they should come to the point of voice of sector. Turkish beekeeper union continues to action in the 62 cities; and there are 17 thousand member. Since 40 thousand people do Professional beekeeping and 180 thousand family gain income from beekeeping. The number of members in the union is very low.⁴⁶ Although beekeeping is not a type of soil dependent production, still protecting soil is very important for continous natural beekeeping. Forest assets should be protected and routes for mobile bekeeping should be identified by mapping the flora. If the effect of environmental conditions to the productivity gained 85% and colony genotype 15%⁴⁷, are considered, then protecting our foloral structure can solve productivity problem. Using pesticides in the agricultural regions without control and untimed decreases the nectar sources of honey bees. Pesticides that are used unconsciously produces remainders in honey and lowers the quality. This also causes decrease in the colony productivity of travelling beekeepers. Regarding colony production, using scientific beehives, spreading the technical beekeeping information, and increasing the mother bee production and supporting could be some problem solvers. Varroa parasite affects our beekeepers, growing long lasting local race against this harmful animal is important. Colony existence in our country is high with respect to km². Even though having a colony number as 5.09/km²⁴⁸ is a result of increased productivity per colony, to increase the productivity per colony is possible only by protecting the natural flora. There is some discomfort regarding marketing of producers and export firms. Small producers as can be called like lifeblood for the sector can sell through wholesalers only with producer pay slip. Especially in the exported honey, pesticides over the level of being harmful to human health causes this honey to be returned back to our country. Lack of control and not analyzed honey causes a huge decline in the export. Giving honey to the local market without control may end up losing consumers.

⁴⁶ Türk arıcular Birliđi <http://www.bianet.org/2004/04/08/32315.htm>

⁴⁷ <http://www.zmo.org.tr/etkinlikler/6tk05/036cetinfiratli.pdf>

⁴⁸ <http://ekutup.dpt.gov.tr/hayvanci/oik587.pdf>

By means of the border commerce, honey that has entered to our country unregistered causes unjust competition and results in placing the producer to a difficult situation. Spreading honey sale to Turkey from Iran and China, and selling these merchandise with the Turkish label, having quality problem in these honey which enters to the country uncontrolled and chemical remainders cause problems in the export.

1.8.1 Support Programs Towards Beekeeping

Support and incitement to the benefit of beekeepers, to provide filtered honey support, mother bee support, and pollination is in the form of Bombus bee support. In 2005, support total to the beekeeping sector is 12.000.000 YTL, and the total support towards stock-breeding and to the type of source is 622.245.000 YTL.⁴⁹ The share that is left for beekeeping is around 1,93 % of the stock-breeding sector total.

Between years 2005-2010, with respect to the program which will be in action for six years, to the producers who took mother bee enterprise number; colony number will not pass 250 per each colony for that year. Mother bee support to the union members is 15 YTL/item, and for people who are not union members is 7,5 YTL/item.

Filtered honey support is paid per kg. For the beekeepers who would benefit from incitement lowering, honey amount is at least 500 kg. and at most 10.000 kg. dir. Filtered honey premium for 2005, is 40Ykr/kg for union members and 30 Ykr/kg for not members.⁵⁰ For the ones who got enterprise numbers by means of controlled under cover production, if they use this by buying Bombus bees for the production season of that year, it will not pass 2 colonies per 1 decare greenhouse.⁵¹ Bombus (pollination) bee support for 2005 is 20YTL per colony.

According to the related regulations, support amounts are given by the Ministry of Agriculture and Rural Affairs each year. According to the frame of 24.03.2005 dated and 25765 numbered Official Newspaper, "Notifications of application for support of stock-

⁴⁹ <http://www.gidasanayii.com/modules.php?name=News&file=print&sid=2895>

⁵⁰ <http://www.erzurum-tarim.gov.tr/2005dstk.htm>

⁵¹ <http://www.izto.org.tr/NR/rdonlyres/7475BDA1-95B7-4855-B351-9ADCE4362AFE/4457/hayvanciliktesvik.pdf>

breeding numbered as 2005/8503 by Cabinet”, our Ministry should decide upon the prices. Here are for the year 2006 support amounts for stock-breeding.⁵²

Table 1.1 Year 2006 Support amounts for Stockbreeding

SUPPORT NAME FOR STOCKBREEDING	TYPE	SUPPORT AMOUNTS PER ITEM
Support for the purchase of pregnant heifer	Pedigree	550YTL/head
	Certified as Pure Race	275 YTL/head
Support for calves that borns with artificial insemination	Registered to the Front Race Log	80 YTL/head
	Registered to the Race Log	140 YTL/head
Milk Incitement	Producers with Organization	5,5 YKrş/liter
	Others	3 YKrş/ liter
	Members of DSYB	7 YKrş/ liter
Support for Beekeeping	Brood Mother Bee- Union member	15 YTL/ item
	Brood Mother Bee – Other	7,5 YTL/item
	Premium for Filtered Honey (Union Member)	60 YKrş/kg
	Premium for Filtered Honey (Other)	30 YKrş/Kg
	Support for Pollinating Bee (Bombus)	50 YTL/colony
Crop Support for water crops	Gilt-head bream, Bass	85 YKrş/kg
	Trout	65 YKrş/Kg
	New Types	1 YTL/kg
	Baby Fish	5 YKrş/item
Support for artificial insemination	K.Ö.Cities and Enterprise with Race Log	36 YTL/head
	Other Cities and Other Enterprise	26 YTL/head
Identification system for stock-breeding	Earring	2 YTL/head
Milking Units and Cooling Tank	Invoice Worth	40 % till 200.000 YTL
Related to the fertilizer hole making	Invoice worth	40 % till 100.000YTL
Supports regarding growing of mohair	Kid Goat Mohair	9 YTL/Kg
	Main merchandise (Thin, Good, Queue, Light)	8 YTL/Kg
	Subsidiary	6 YTL/Kg

Source: Ministry of Agriculture, Forests and Villages

⁵² <http://www.altintas.gov.tr/ilce%20tarim/destek.htm>

Amount that is calculated by the worth of exported good under the support towards export of agricultural products for the people who do honey export is calculated to their expenses towards SSK, tax, energy and communication.⁵³ This application is like a type of return for KDV that is paid for inputs that are subjected to export. Amount either is taken as cash or is calculated afterwards.

Project that is prepared by Muğla Beekeepers Association for developing the sector is supported by EU with 208,000 Euro. Project targets providing support to the sector at every stage. In year 2005, Project would contribute to both 5000 beekeepers and to the side establishments that supports for beekeeping in this sector.

⁵³ <http://www.dtm.gov.tr/ead/DTDERGI/nisan2002/gida.htm>

PART II

2. BEEKEEPING SECTOR IN EUROPEAN UNION AND IN THE WORLD

2.1. Structure of Honey Sector in the World and in European Union

Today, beekeeping is a type of agricultural production and wide-spread to the world. Crop that is harvested if natural has some benefits on the human health but also it protects natural environment and it increases agricultural capacity by pollination. With respect to year 2005 numbers, there are 62.383.436 beehives and bee colony existence in the world. Year 2005, produced honey amount is 1.381.404 tons.⁵⁴ Efficiency per colony in the world is 22.14 kg.

Table 2 .1 Number of beehives per year in the World.

<i>Beehives Stocks (Number)</i>	Year						
	1999	2000	2001	2002	2003	2004	2005
World	57,807,545	58,271,474	59,078,244	60,537,838	60,635,730	62,008,806	62,383,436

Source: World Agricultural Organization

Table 2.2 Honey produced per year in the World

<i>Honey Production (Mt)</i>	Year						
	1999	2000	2001	2002	2003	2004	2005
World	1,237,108	1,251,905	1,263,514	1,287,457	1,353,696	1,372,142	1,381,404

Source: World Agricultural Organization

According to data, colony counts for 2004-2005 increased 6,04 % while , honey produce increased 6,75%. Hence, while colony counts increase honey production capacity also increases.

In the table below, colony counts per year for each country in the world is given.

⁵⁴ www.fao.org

According to the year 2005 numbers, China has the most colony count as 7.3 million colony, Turkey is second with 5 million, Etiopia is third with 4.3 million, Russia is fourth with 3.4 million, Iran is fifth with 3.4 million, Argentina is sixth with 2.9 million, Tanzania is seventh with 2.7 million, America is eighth with 2,6 million, Kenya is ninth with 2.5 million and Spain is tenth with 2.3 million colony.

There are differences with respect to produced honey amount and colony count. Here, capacity comes to the front. According to year 2005 FAO numbers, China produces 305.000 tons, Argentina and America produce 80.000 tons, Turkey produces 73.000 tons, Mexico produces 56.000 tons, Russia produces 53.000 tons, India produces 52.000 tons, Etiopia produces 39.000 tons, Spain produces 37.000 tons, Iran produces 36.000 tons ve Tanzania produces 27.000 tons of honey. China, America and Argentina stands for the countries in which efficiency per colony is the highest. While Argentina receives 27,58 kg efficiency per colony, America receives 30.89 kg, China receives 41,78 kg, Turkey receives 14,60 kg, and Spain receives 16,08 kg. efficiency.

In the year 2004, China was the first regarding the foreign sale in the world with 82,492 tons, Argentina was the second with 62,536 tons and Mexico was third with 23,374 tons, Germany was fourth with 22,374 tons, Brasil was fifth with 21,029 tons, Vietnam was sixth with 15,563 tons, Hungary was seventh with 14,962 tons, Uruguay was the eighth with 13,357 tons.

As can be seen in the Table 2.3, according to the export world wide, Argentina is first with \$120,537 Thousand ile birinci, China is second with \$92,837 thousand, Germany is third with \$90,092 thousand and other countries follow. Some countries are seen as having more honey sale to out than they produce. Especially, Germany is one of the biggest buyers in the world. This means that germany sells imported honey with its own brand name. This trade may have some negative consequences regarding health due to its being food. With foods like honey, any kind of process may break down the natural properties. The biggest buyer for Mexican honey is Germany. Mexico, exported 35 million dolar honey with the free trade agreement that it is made with European Union in the year 2004.⁵⁵ China in spite of being a leader in the world, sells honey for cheap.

⁵⁵ <http://www.embamex.co.uk/Economica/documentos/archive/TradeLink%20March2006pdf.pdf>

According to year 2004 FAO data, China sells honey with \$1,13/kg. , Argentina sells with \$1,93 /kg. , Germany sells with \$4,02 /kg, Mexico sells with \$2,46/kg. , Hungary sells for \$3,36 /kg. Approximately.

Table 2.3 Important Countries which Export Honey in the World

Countries	Export amounts for year 2004 (1000\$)
Argentina	120,537
China	92,837
Germany	90,092
Mexico	57,408
Hungary	50,262
Brazil	42,303
Canada	38,073
Spain	34,875
Uruguay	28,751
Australia	22,845
Viet Nam	20,046

Source: World Agricultural Organization

Table 2.4 World Honey Export Amounts

Honey Exports - Qty (Mt)	Year					
	1999	2000	2001	2002	2003	2004
World	341,713	373,654	361,019	405,598	403,198	384,389

Source: World Agricultural Organization

Table 2.5 World Honey Export Sum

Honey Exports - Val (1000\$)	Year					
	1999	2000	2001	2002	2003	2004
World	429,994	438,297	440,408	697,710	950,197	862,525

Source: World Agricultural Organization

In European Union, for year 2004, honey produce is 169,930 tons, for 2005 produce is 173,650 tons.⁵⁶ Spain, Hungary, Poland, Germany, France, Greece, Austria are among the EU countries which produce honey.

In 2004, EU exported 202,851 tons of honey and its worth is \$564,336 thousand. Export for 2004 is 69,151 tons and worth is \$267,181 thousand. (Trade inside the union is included). EU is the biggest buyer market from foreign countries in the world.⁵⁷ Colony count of our country is half of the colony count in EU. Our produce is 42,57% of produce in EU.

2.1.1 Leader Countries in the European Union Honey Sector

According to year 2005 data, total colony count in EU is 10,340,555. Colony numbers for Spain is 2,300,00 , for Poland and Greece is 1,300,000, for France it is 1,150,000 , and for Germany it is 930,000. These countries are leader countries in honey production.⁵⁸

Spain has the most colony count and the biggest producer with 37 thousand tons.

Table 2.6 Amounts of Honey Import by European Union Countries

<i>Honey Imports - Qty (Mt)</i>	Year				
	2000	2001	2002	2003	2004
Austria	4,430	4,612	5,474	4,297	4,494
Belgium	10,144	10,475	8,561	6,652	6,859
Cyprus	121	167	174	71	46
Czech Republic	660	1,073	1,044	1,757	1,168
Denmark	5,596	6,557	4,410	5,486	4,657
Estonia	113	108	126	139	195
Finland	1,293	1,029	962	989	1,138
France	15,724	15,547	16,836	15,165	17,081
Germany	95,016	92,200	98,909	93,532	88,958
Greece	2,079	2,433	2,755	1,609	2,662

⁵⁶ FAO

⁵⁷ FAO

⁵⁸ see appendix table 1

Hungary	857	690	958	1,713	1,882
Ireland	1,100	1,436	1,966	1,270	1,815
Italy	12,487	11,961	14,073	14,449	15,390
Latvia	244	318	184	149	291
Lithuania	13	57	19	16	171
Luxembourg	120	102	121	148	124
Malta	5	3	4	6	20
Netherlands	8,234	4,549	5,495	9,575	7,279
Poland	1,126	3,180	4,550	4,488	4,089
Portugal	1,797	1,967	1,966	1,914	1,398
Slovakia	214	618	635	869	621
Slovenia	214	229	30	73	307
Spain	13,625	14,756	10,910	11,119	13,759
Sweden	2,348	2,435	2,647	2,622	2,554
United Kingdom	22,748	26,151	29,901	21,867	25,893

Source: World Agricultural Organization

According to the data in the Table 2.6, Germany is the biggest buyer of EU with 88,958 tons. Germany imports more honey than our produce by itself and sells this honey to other countries with trade inside the union. England, France, Italy, Spain are the other countries that make purchase.

Table 2.7 Honey import Value of European Union Countries

Honey Imports - Val (1000\$)	Year				
	2000	2001	2002	2003	2004
Austria	6,374	6,975	11,933	13,793	14,600
Belgium	13,973	13,937	17,415	20,997	21,751
Cyprus	165	205	256	106	248
Czech Republic	680	1,054	1,547	2,962	3,457
Denmark	6,026	7,171	8,464	15,185	14,429
Estonia	143	160	224	333	527
Finland	2,043	1,745	2,231	3,625	4,111
France	21,735	22,563	35,889	49,532	54,530
Germany	104,894	110,395	161,609	240,851	230,704

Greece	2,713	3,597	5,308	4,703	8,459
Hungary	797	661	974	2,817	9,300
Ireland	1,663	2,083	3,948	4,100	5,209
Italy	15,021	15,028	27,900	42,382	41,621
Latvia	445	532	318	407	514
Lithuania	33	70	35	65	422
Luxembourg	488	424	496	784	856
Malta	20	13	15	27	89
Netherlands	12,366	7,596	12,198	22,794	23,011
Poland	1,287	3,039	4,860	4,479	7,067
Portugal	2,532	2,779	3,789	6,048	4,741
Slovakia	224	607	701	1,666	1,192
Slovenia	224	320	41	222	821
Spain	13,347	14,804	16,919	27,269	31,463
Sweden	4,124	4,386	6,606	9,602	10,097
United Kingdom	23,790	29,270	51,695	64,229	75,117

Source: World Agricultural Organization

Germany is the biggest buyer in the EU with 230 million dolar. Import amounts for other countries are 75 million dolar for England, 54 million dolar for France, 41 million dolar for Italy, and 31 million dolar for Spain.⁵⁹

2.1.2 Honey production for European Union Countries

Spain is the highest producer of EU with 37 thousand tons. Others are Hungary with 20,500 tons , Germany with 17 thousand tons, Greece and France with 15 thousand tons, Poland with 12,500 tons. Netherlands does not produce any honey. In production, efficiency per colony is important. Hungary is the most efficienct country among the EU countries regarding production.⁶⁰

⁵⁹ Table 2.7

⁶⁰ Table 2.8 FAO

Tablo 2.8 EU Honey Production Amounts

<i>Honey Production (Mt)</i>	Year					
	2000	2001	2002	2003	2004	2005
Austria	8,700	8,000	7,700	9,000	10,000	11,000
Belgium	1,460	1,400	1,500	1,600	2,156	2,150
Cyprus	750	950	1,002	1,000	1,000	1,000
Czech Republic	7,553	6,231	5,883	6,303	7,738	7,000
Estonia	334	291	771	535	555	600
Finland	1,100	1,800	1,700	1,700	1,700	1,700
France	15,691	15,383	16,200	15,000	15,000	15,000
Germany	20,409	25,951	14,620	23,691	16,000	17,000
Greece	14,356	17,632	14,935	15,146	15,595	15,000
Hungary	15,165	15,337	15,200	21,000	19,504	20,500
Ireland	240	260	197	197	197	200
Italy	10,000	10,000	8,000	7,000	8,000	9,000
Latvia	333	575	760	552	746	800
Lithuania	816	1,078	1,256	1,156	1,100	1,000
Netherlands	0	0	0	0	0	0
Poland	8,623	9,528	9,644	11,620	11,957	12,500
Portugal	4,461	4,538	7,861	7,310	6,737	6,700
Slovakia	3,493	3,253	3,091	2,650	2,500	2,600
Slovenia	2,300	2,550	2,450	1,850	2,350	2,500
Spain	28,860	31,617	35,722	35,279	36,695	37,000
Sweden	2,600	3,000	3,300	3,400	3,400	3,400
United Kingdom	2,870	3,000	5,000	7,000	7,000	7,000

Source: World Agricultural Organization

2.1.3 European Union Countries Colony Counts.

Total colony count of EU in 2004 was 10,240,648 and in year 2005, it was 10,340,500.(Source: World Agricultural Organization) Spain is the first in EU with 2,300,000 colony count. Poland and Greece have 1,300,000, France has 1,150,000, Italy has

950,000 colony counts.⁶¹ Netherlands do not have colony count and honey production. The colony count for England is unknown but England produces honey. Mean colony count per country is 409 thousand. Colony count is the most important factor that affects production but vegetation and bee race to be powerful⁶²

Efficiency per colony for Spain is 16,08 kg, for Hungary 34 kg. , for Germany 18,28 kg. , for France 13,04 kg. , and for Greece 11,54 kg.

Mean efficiency per colony for EU is 16,80 kg.

Table 2.9 Colony counts for EU Member Countries

<i>Beehives Stocks (Number)</i>	Effect efficiency. Year					
	2000	2001	2002	2003	2004	2005
Austria	310,000	310,000	345,000	345,000	345,000	345,000
Belgium	29,000	29,000	29,000	29,000	29,000	29,000
Cyprus	44,260	46,932	50,000	50,000	50,000	50,000
Czech Republic	534,814	537,226	517,743	477,743	480,000	480,000
Estonia	23,400	37,000	50,000	50,500	34,500	32,700
Finland	42,000	44,000	47,000	37,000	45,000	45,000
France	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000
Germany	902,000	950,000	930,000	930,000	930,000	930,000
Greece	1,289,572	1,293,280	1,300,000	1,300,000	1,300,000	1,300,000
Hungary	590,000	590,000	590,000	590,000	590,000	590,000
Italy	900,000	900,000	900,000	900,000	900,000	950,000
Latvia	0	39	48	54	46	48
Lithuania	73,000	74,800	76,100	80,900	81,100	82,800
Netherlands	0	0	0	0	0	0
Poland	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Portugal	298,000	300,000	300,000	300,000	300,000	300,000
Slovakia	267,361	279,303	262,250	192,002	192,002	192,002
Slovenia	190,000	210,000	210,000	210,000	210,000	210,000
Spain	2,125,100	2,298,100	2,266,400	2,266,400	2,250,000	2,300,000
	52,500	53,000	53,500	54,000	54,000	54,000
United Kingdom	0	0	0	0	0	0

⁶¹ Table 2.9

⁶² Table 2.9 FAO

Source: World Agricultural Organization

2.1.4 Floral Structures

It is very important to increase the efficiency in agricultural production and to achieve continuity in order to protect the natural vegetation due to honey bee pollination. Furthermore, there is no kind other than bees for pollination to protect environment and its continued existence.⁶³

Usable area of land in the world is 13,004,397,000 hectare. Whole of Europe is on the other hand, 2,209,316,000 hectare.⁶⁴ To protect the floral structure of the country is directly related with the colony existence and efficiency.

Also, forest structure of the country is important for beekeeping. Some of the vegetation can only grow in some parts of the geography of that area. These kinds also give taste to the honey. These can not be found in some other places.

Beekeeping is done in all over the world from tropical climate to harsh cold of North. In the countries from Equator, harvest can be taken in all year however in Finland, honey can be harvested only 2-3 weeks duration in a year. Taste and color of the honey also depends mainly on the nectars from flowers. Especially some flowers secrete nectar in some specific times and bees from these regions produce honey from these kinds and this honey is very valuable for beekeepers. We can give chestnut and pine honey as examples from our country.

In the worlds on the other hand, there are examples like apple honey from England, locust honey from Romania, Bulgaria and Hungary, lavender honey from Spain and France, untamed thyme from Greece, Spain, New Zeland, and France.⁶⁵ There is special taste and color which comes from floral structure of those countries in that honey.

Hungary has 3000 types of vegetation, 43,000 living kinds, 5 type endemic kind in spite of its structure, industrial and modern agricultural threats. However, due to its neighbours, Hungary faces environmental pollution.⁶⁶

⁶³

<http://www.beecare.com/indexDynFrames.htm?http://www.beecare.com/Navigation/SideNavFrame.htm&0>

⁶⁴ FAO

⁶⁵ <http://www.honeyassociation.com/abouttho.htm>

⁶⁶ <http://www.fao.org/gtos/ceeCOUNT2.html>

2.2. Honey Production Planning in the World and in European Union

It is very important for the colonies to be moved in technical beekeeping, floral follow up. Without mobile beekeeping, it is impossible to have profit from beekeeping in the world as in our country. Countries do honey production with respect to their floral structure and climatic conditions. Beekeeping is an agricultural production type that can be done almost in all seasons. While honey season can last for 2-3 weeks in North countries with cold weather, season can last for year long in warmer countries.

Efficiency affects honey production, in this situation, cost of honey production decreases while profit increases. Efficiency is also related with the number of worker bees in the colony, and factors like mother bees. Countries allow for new queen bee once in every two years even though its life span is 5 years. Beekeeping also contributes to the efficiency of agricultural sector by pollination next to honey production.

According to year 2005 data from World Food and Agriculture Organization, World honey production is 1,381,404 tons, and its distribution with respect to countries is as followed.⁶⁷

2.3. General Situation of Honey Producers in the World and in European Union

Beehive number in the world, on in other words, bee colony count is 62,383,436. European Union beehive count is 10,340,550. We can say that 16,58 % of the worlds' producer existence is in EU. 173,650 tons of honey that is produced in the world is of totally 1,381,404 tons and is produced in EU. 12,57 % of the world honey is produced in EU. There is almost 50,000 professional beekeeper in EU. In EU honey production is done much more in the South regions like Portugal, Spain, Greece, France, and Italy. Production of the North Europe like of Netherlands, England, Belgium, Germany, Luxemburg, and Danmark meets only the local needs and is of amateur.⁶⁸

⁶⁷ See appendix table 02

⁶⁸ http://ec.europa.eu/food/fs/sc/scv/out53_en.pdf

China with 7,301,500 beehive count, has the biggest bee population in the world and production is 305,000 tons. In other words, 11,70% of world bee count is in China. It meets 22,08 % of the world production by itself.⁶⁹

Bee population of European Union raised 0,97% last year, but in China it raised 1,38%. In the world on the other hand, this proportion is 0,60%. Growth rate of producers in China is above of world average. Argentina has the 4,65 % of the world beehive count with 2,900,000 According to the last four year data, there was not an increase in the bee population in Argentina. Argentina meets for 5,79% of the world produce. Mexico has the 2,89 % of the world colony count with 1,800,000. With regards to the data, bee colony count has decreased 10 % in the years 2001-2002 and there has not been an increase afterwards. It meets 4,11% of the world production. It exports honey in the important amounts to EU specifically to Germany.

2.4. Honey Production and Stocking in the World and in European Union

European Union with the instruction numbered 2001/110/EC underlined the necessary stuff that should be obeyed in case of honey, dated June 19-20th of 2002.⁷⁰

Honeybee flies for 20-50 days which lasts for 15 minutes for each day. It picks up the nectar of plants which is 90 % water and sweet water of plants. Transformation of nectar to honey starts in the pockets where nectar is stocked during flight. Collector bee vomits when it comes to the beehive. Worker bees take this little drop which has 50 % water and it is moved from one bee to another and to the eye of the honeycomb. Nectar which is kept in the various eyes of honeycomb is made evaporated by flanking at 37°C with air currents. When nectar becomes honey, water level becomes 20% and bee which makes wax ,closes the eye with a lid that it makes.

Honey can be kept for a long time in the sealed boxes. In pratic, shelf life time of honey is identified as two years. Processed honey can be kept between 18-24 °C and having short termed high temperature may affect its structure hence this time should be very

⁶⁹ FAO

⁷⁰ http://ec.europa.eu/food/fs/sc/scv/out53_en.pdf

short. If the time of having high temperature gets longer, the structure of fructose and glucose Hidroksi Metil Furfural (HMF) may be broken down. This proportion as permitted by the 2001/110/EC numbered regulation is max 40 mg/kg. The quality of honey may be determined this way. Room temperatured honey gets crystallized naturally according to the glucose inside. Crystallization changes with respect to the composition of honey. If glicose to water proportion is lower than 2.1, then it gets crystallized sooner. Controlling the crystallization is possible with producing cream honey. This is achieved by mixing 90% filtered honey with 10 % crystallized honey at 25-27 °C. After being at rest at the same temperature, it is put into some containers and it is kept at 14 ° C. Total crystallization lasts for 4-5 days. By pasteurizing honey, it can be kept stocked for 9-10 months and this way crystallization is prevented. More common type is heated at 77 °C for 2 minutes and suddenly its temperature is lowered to 54 °C.

Other stocking way is filtering. At the end of this process, since crumbs that are contained by floral structure of honey are filtered, it is hard to find them and HMF level may go out of the desired limits as of 40 mg/kg. Because of this, many honey producers do not want to produce filtered honey. Yearly honey consumption for EU is 270,000 tons, 202,851 tons of yearly need is imported.⁷¹ Import is done as bulk by 300 kg barrels.

2.5. Honey Production Cost and Determination of Price in the World and in European Union

Honey export for 2004 is 384,389 tons and worth is \$862,525,000. Mean sale price is \$2,24 /kg. Since some countries export honey that is imported, this amount may be different for EU. World honey import is on the other hand 390,603 tons worth is \$921,896,000 .⁷² Mean import price is \$2,36/kg. This difference comes out with the price difference in the reexported honey.

In EU, mean imported honey is \$2,78/kg. while exported honey is \$3,87kg.

China exports honey for \$1,13 /kg. Like in every other enterprise, efficiency is one of the main element that affects cost in beekeeping. Since China has high efficiency, cost is low

⁷¹ World Agricultural Organization

⁷² World Agricultural Organization

and hence becomes identifier of the prices. As in other countries, supply demand balance determines the honey price. In the years 1970-74, honey price reached almost three times its price, but in the following years it dropped too quick. For the last 20 years, light colored flower honey price was under \$1. Both producers as much as consumer nations' money units was effective in the waving of prices. Generally, quality of honey plays an important role in price. Uncloudedness, homogeneity, the amount of humidity are important factors. Some importers point to the low level HMF.

Generally, light colored honey is sold for the highest price, the one which is preferred for industry is dark colored honey. Some special honeys find buyer with high prices. Hungary flower honey is sold for two timed price. Honey that is sold to Switzerland as in the form of bottle lavender honey has a high price also.

In the developing countries, international prices are generally under cost, for this reason, inner industry sales gain importance. Characteristic local properties of honey is one of the main factors that affect prices.⁷³

Tablo 2.10 Honey Cost of Production 1997

HONEY COST OF PRODUCTION SUMMARY - 1997

A. OPERATING COSTS	\$/Colony	Cost/lb	Your Farm
1. Feed Costs:			
1.01 Sugar Syrup	\$	\$	_____
1.02 Pollen Supplement			_____
Total Feed Cost	\$	\$	_____
2. Other Operating Costs:			
2.01 Vet. Medicine & Supplies	\$	\$	_____
2.02 Stock Replacement			_____
2.03 Fuel			_____
2.04 Machinery, Mtce. & Supplies			_____
2.05 Building Mtce. & Repairs			_____
2.06 Utilities			_____
2.07 Barrels			_____
2.08 Bldg. Vehicle & Liability Ins.			_____
2.09 Small Tools, Equip. & Supplies			_____

⁷³ <http://www.fao.org/docrep/w0076e/w0076e06.htm#2.10>

2.10 Memberships & Associations			_____
2.11 Miscellaneous Costs			_____
Subtotal Operating Costs	\$	\$	_____
2.12 Operating Interest			
2.13 Wax Sales			_____
TOTAL OPERATING COSTS	\$	\$	_____
B. <u>FIXED COSTS</u>			
3. Depreciation			
3.01 Buildings	\$	\$	_____
3.02 Machinery & Equipment			_____
3.03 Hives			_____
4. Investment			
4.01 Buildings			_____
4.02 Machinery & Equipment			_____
4.03 Hives			_____
4.04 Bees			_____
TOTAL FIXED COSTS	\$	\$	_____
TOTAL OPERATING & FIXED COSTS	\$	\$	_____
C. <u>LABOUR COSTS</u>	\$	\$	_____
TOTAL COST OF PRODUCTION	\$	\$	_____

Source: <http://www.gov.mb.ca/agriculture/financial/farm1997/cac06s01.html>

2.6. Honey Marketing Strategies in the World and in European Union

When looked to the sale figures, consumption is intensified around the chain stores and supermarkets. Honey produce in the world every year is around 1,2 million tons. Light colored honey is preferred much more than the dark colored honey. As honey can be consumed directly, it is used in the pastry sector. There are also healing applications regarding the health sector. Hence, honey with a very large usage area, has a large marketing opportunity since it is consumed for many years. Also, since it could be found in year round, marketing gets more easy. Honey that is sold to the consumer pasteurized can be kept in the vacuum packages.

Benefit of honey is directly related with inclusion. Countries who gives more detailed information about product inclusion looks more successful in sale and marketing. Different properties of countries in packaging, service, and quality cause products to be preferred. Countries use this advantage of floral structure very well. Pine honey of our country is also preferred in EU due to the same property. Countries which import and consume honey are mainly developed countries like USA, Germany, Japan, and England West European Countries import 55% of their consumption which is 140,000 tons of honey.⁷⁴ While yearly consumption per person in EU is 600 gr., it is 1800 gr. in Germany, and 300gr. in Greece. Marketing channels alter with respect to the countries. While in Italy 60 % of organic feed is sold in the organic stores, this proportion is 45 % in Germany and in France.⁷⁵ Wholesalers, distributors and merchants who are in action in the all parts of the world regarding honey marketing, buy direct merchandise from developing countries generally. Information regarding this topic can be found in the appendix.

2.6.1. Food Stores and Supermarkets

In the world, generally honey is sold in 300 kg barrels and as bulk to the food distributors. Crops which are presented in the stores and supermarkets to the consumer, are put into several typed packages which would draw attention of the consumers. The most preferred packaging type is glass jars.

Price, service, supply and purity are identifying properties.⁷⁶

Negations of the honey marketing can be listed like following: bad packaging, not having a brand, deficient advertisement, promotion, and international market experience deficiency. If we consider Germany market, in order to enter the market going by wholesaler or distributor to the market is a good way. Some wholesalers who are suitable to EU rules, make import generally. The best method for sellers is to reach the big retail market chains' purchase centers. In Germany, in the retail market, there are 5 chain stores. Metro-Group, Edeka/AVA-Group, Rewe-Group, Aldi-Group ve Tengelmann-

⁷⁴ www.fao.org/docrep/w0076e/w0076e06.htm

⁷⁵ www.agnet.org

⁷⁶ <http://www.isapindia.org/Honey%20Buyer%20Seller%20Meet%20&%20Conference%202006.pdf>

Group. These stores generally buy directly from provision stores who have distribution net over Germany. ⁷⁷ Exporters to make direct sale to these stores cause many extra costs under their own brand.

2.6.2. Food Manufacturers

Industrial honey is used in this sector. Industrial honey is dark colored honey. Since it is not preferred by consumers and since it is cheap, and because it is natural in the food manufacturing sector, it is started to be used instead of sweeteners. It is used at the places like pastry manufacturers, sweeties manufacturers, etc.

Distributor and wholesaler firms who are active in the honey market of Germany solve topics like distribution in the market, service, and packaging by themselves. To be able to enter these markets, you can market by the help of food distributors. By this way, service topic is solved. To the topics like stocking, distribution, packaging, and return, more quick and in place intervention can be given. Regarding food distribution channels topic, you can find establishments who are in charge of German market in the appendix.

2.6.3. Farm shops, Food boxes and Other Direct Sale Methods

In these types of places, organic and natural crops are sold. In our country some establishments started to give service in this area. These firms can also be reached by the mentioned above food wholesalers and distributors. By participation to the out of country fairs, there may be opportunities for meeting with other firms. Also, by help of the B2B sites to the wholesalers and by the help of the B2C web sites to the direct consumers, there is possibility of both national and international sale. Export Unions in our country, Foreign Trade Attaches, İGEME, etc establishments announce foreign trade demands by Internet web sites. In addition to this, sometimes Foreign Trade Undersecretary (DTM) arranges out of country trips to specific sector representatives and finds opportunity for commercial agreements in return.

⁷⁷ <http://sea.agr.gc.ca/europe/e3039.htm>

2.6.4. Other Particular Sale Points

In this group, there are food manufacturers, pastry manufacturing firms, and meal manufacturing firms. With the fairs which are done before tourism season, these firms may carry on their yearly agreements with the producer and provision firms.⁷⁸

2.6.5. Main Retail Chains

Food retail chain stores of Germany has a total revenue of 136 billion Euro for 2003.⁷⁹ If looked to the retail sector sale figures, it can be understood easily that is a big market.⁸⁰ Due to being a more widely known way of shopping, and the purchased merchandise to be branded, consumers prefer these kind of stores for shopping.

2.7. Honey Sale in the World and in European Union and Its place in the Foreign Trade

In the world, year 2003 agricultural crops foreign sale total is \$523,884,525,000, in the year 2004 on the other hand this number reached to \$604,329,383,000. EU year 2004 agricultural product export is \$287,233,200,000 while import is \$290,474,071,000. (FAO data) In the year 2003, honey products sale total is \$950,197,000, in the year 2004 it is \$862,525,000 in the world. In EU honey foreign sale is \$267,861,000, and import is \$564,336,000.⁸¹ In the world, year 2003-2004 agricultural products foreign trade sales are

⁷⁸ See appendix for a detailed list

⁷⁹ <http://www.dtm.gov.tr/dtm/upload/D/AlmPera.doc>

Kaynak: Lebensmittel Zeitung, www.LebensmittelZeitung.de, 18/03/2005

⁸⁰ See Appendix for detailed Information

⁸¹ FAO

increased by 15,35 %. In the same term, there is 9,3 % decrease in the honey sale. In the world, in year 2003, the proportion of honey sale in the agricultural products is 0,18 %. In the year 2004, this proportion became 0,14%.

In EU with respect to year 2004 data, agricultural products export form 47,53 % of the world' agricultural products export. While in EU, the proportion of honey to the agricultural products export is 0,09%, it is 0, 19% in the import. The proportion of honey export in EU to the proportion of honey export in the world is 31,06%. In EU, market of agricultural products is much bigger than honey market in general. Important honey consuming countries regarding World Food and Agricultural Organization are America, China, Germany, Russia, Ukraine, Turkey and India.

2.8. Problems of Honey Sector in the World and in European Union

The quality of honey becomes important in the topics like service, packaging and distribution. Some of the most important problems are countries' prevention of products that do not match with the food codex in order to protect the consumers and to bring prohibitions to this country. Prohibited countries have some marketing attempts by the country to pass beyond and as a result of this some unhealthy products may be presented to the consumers. In the term 2000-2001, as a result of USA, Canada and EU having prohibitions towards China for the pesticide remainders (antibiotic chloramphenicol) in the Chinese honey which cause cancer, China sold honey to USA by Singapore- Australia and Australia stopped the import.⁸² Australia said that these honey were sold without coming to the country as their brand and this pesticide was not used in their country. Pesticide remainders in honey come out as the biggest problem. Honey, mostly transported 300 kg and 55 kg by bulk packaged and it reaches to the supplier as crystallized during transportation. Honey is packaged in the suitable manner before it is put into the shelves. It is heated before it is packaged again and filtered. If this process is not done according to the health regulations and food codex may break down the quality

⁸² http://www.beekeeping.com/articles/us/honey_laundering.htm

of honey.⁸³ To protect the purity of honey is the most important factor that affects the price of honey. Humidity should be in the desired levels.

Quality of honey is the most important factor in the honey trade. So that honey trade of the countries which have problem of quality may come to the point of no return, this situation is the most important problem.

2.9. Regulations and Directives Regarding Common Honey Market in European Union

As observed from the records of European Union, the first directive regarding honey was published in 1974 and come into the force after it released. The Member States have also carried out their studies of the beekeeping sector, covering the production and marketing structures and price formation. Directives and regulations that come into effect aim amelioration of honey sector and protect of both local market and consumers against the bad results of low quality products. For the honey, products that do not meet the standards stating on the conditions of these regulations are strictly prohibited to enter the market within European Union and imposed the companies to comply its structure with respect of the rules laid down in directives.

In June 1997, the Council adopted Regulation (EC) No 1221/97, which is intended to help improve the production and marketing of honey in the European Union. The Regulation gives Member States the chance to lay down national annual programmes, in close cooperation with trade organisations and cooperatives. The five priority measures that may be included in the programmes are:

- technical assistance,
 - control of varroasis,
 - rationalisation of transhumance,
 - measures to support laboratories carrying out analyses of honey and
 - applied research to improve the quality of honey.
- In November 1997, Commission Regulation (EC) No 2300/97 laid down detailed

rules to implement the Council Regulation. Among other things, these detailed rules govern arrangements for:

⁸³ <http://www.barkman-honey> ABD

- the content of the national programmes
- the date of notification of programmes
- the distribution formula for Community financing and
- points to be covered in studies of the structure of the sector.⁸⁴

as observed, the purpose of all released the directives and regulations in EU is for the implementation of rules for the products which are produced in EU and imported to EU and besides that to improve the standards for the production and marketing of honey.

These Regulations give effect to the EU Directive 2001/110/EC which prescribes standards for the composition and labelling of honey and replaced the 1974/409 honey Directive. Compositional criteria are laid down in respect of sugar content, fructose and glucose content, moisture content, water -insoluble content, electrical conductivity and free acid. Also included are minimum levels of diastase activity and a maximum level of hydroxymethylfurfural (HMF) content. (changed as 40mg/kg, in the past it was 80mg/kg.)

The country or countries of origin where the honey has been harvested must be indicated on the label. If the honey originates in more than one Member State or third country then the indication may be replaced by one of the following as appropriate:

- 'blend of EC honeys'
- 'blend of non-EC honeys'
- 'blend of EC and non-EC honeys'

From the 1st August 2004 a person shall not place honey on the market unless it complies with the Labelling Regulations (S.I. No. 483 of 2002) and with Council Directive 2001/110/EC However, a person may place honey manufactured before 1st August 2004 on the market in accordance with the previous legislation (now revoked and listed in Regulation 10 of the S.I.) until stocks are exhausted.⁸⁵

The Directive therefore to protect the interests of consumers and allows free movement of honey Within European Community.

The provisions that are new in Directive;

⁸⁴ http://ec.europa.eu/agriculture/markets/honey/index_en.htm

⁸⁵ Ireland Food Authority

http://www.fsai.ie/legislation/food/legislation_foodproducts_animalorigin.asp#honey

-there is a new requirement to label the country or the countries of origin where the honey was harvested.

- there is a new reserved description for finely filtered honey; which removes all the pollen and which must be labelled as filtered honey.
- There is a new requirements for the electrical conductivity of honey (the electrical conductivity of honey indicate the extent to which honey was fermented and the level of inorganic matter in the honey. It can also provide evidence of the floral origin of the honey.)
- HMF level is defined as 40mg/kg. HMF is sugar breakdown product and is used as indicator of honey quality since it increases the temperature and storage time.
- Baker's honey must be labelled with the word 'intended for cooking only'
- Filtered and baker's honey may not be labelled with information relating floral or vegetable origin.(this is because the treatment that these honey may have undergone can alter the compositional elements which provide evidence of the honey's origin.)⁸⁶

The European Union was the first market to have governmental legislation on organic production. Since it is still the biggest organic market, the Regulation EEC 2092/91 continues to be probably the most important organic standard for organic producers and traders world-wide. Council Regulation (EEC) No 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs OJ L 198, 22.7.1991, p. 1–15

Directives and Regulations regarding honey and beekeeping sector published in EU respectively;

Commission Directive (EC) No 1974/409 of 22 July 1974 on the harmonization of the laws of the Member States relating to honey OJL 221

Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey (OJ L 173, 1.7.1997)

Commission Regulation (EC) No 2300/97 of 20 November 1997 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the

⁸⁶ http://www.food.gov.uk/multimedia/pdfs/honey_ria03.pdf

application of measures to improve the production and marketing of honey (OJ L 319, 21.11.1997)

Council Regulation (EC) No 2070/98 of 28 September 1998 amending Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey Official Journal L 265 , 30/09/1998 P. 0001 – 0001

Commission Regulation (EC) No 2633/98 of 8 December 1998 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

Commission Regulation (EC) No 1479/1999 of 6 July 1999 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/1997 laying down general rules for the application of measures to improve the production and marketing of honey Official Journal L 171 , 07/07/1999 P. 0009 – 0010

Commission Regulation (EC) No 1438/2000 of 30 June 2000 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey Official Journal L 161 , 01/07/2000 P. 0065 – 0066

Commission Regulation (EC) No 704/2001 of 6 April 2001 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey Official Journal L 098 , 07/04/2001 P. 0014 – 0014

Commission Regulation (EC) No 1336/2001 of 2 July 2001 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey *Official Journal L 180 , 03/07/2001 P. 0021 - 0022*

Council Directive 2001/110/EC of 20 December 2001 relating to honey *Official Journal L 010 , 12/01/2002 P. 0047 - 0052*

Commission Regulation (EC) No 1216/2002 of 5 July 2002 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey Official Journal L 177 , 06/07/2002 P. 0004 - 0005

Commission Regulation (EC) No 1387/2003 of 1 August 2003 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey Official Journal L 196 , 02/08/2003 P. 0022 - 0023

PART III

3.REASONS FOR TRANSITION TO ORGANIC BEEKEEPING IN OUR COUNTRY AND TRADEMARKING

3.1 Transition Process to Organic Honey Production

The reason for transition to organic beekeeping is not different from transition to organic agriculture. Main aim is to protect the environment before it is broken down, to present the produce to the consumers before the quality breaks down. Regulation of Ministry of Agriculture dated 22.8.2003 and numbered as 25207 describes organic agriculture as followed. Ecologic agriculture is an all timed (from production to consumption) controlled and certified agricultural production type without using chemical inputs in production. The aim of ecologic agriculture is to protect environment, plant, livestock and human health without pollution soil and water resources and air.

Ecologic agriculture is a system which protects the balance in nature, provides continuity on the efficiency of soil, to form the living beings in nature by protecting their health and the dangerous stuff, optimum usage of natural resources and energy and where optimum efficiency is the end result.⁸⁷

Organic beekeeping on the other hand is the all timed controlled and certified beekeeping actions in organic agricultural areas and flora in which the organic structure did not break down, without having artificial nutrition and pesticide usage from production to consumption in the process of transforming nectar, pollen, water and propolis to the various bee products by bees. Human brings together environment and the agricultural production system which can be continued as economically. The aim of the system is to

⁸⁷ Bozzini 1990

protect the natural resources and to produce food for human and animals that would be purified from harmful insects and from illness.⁸⁸

Organic beekeeping depends on contracts and enterprise who wants to produce organically should have a contract with the control authority and certification establishment. Entrepreneur who wants to produce with the organic agricultural method applies to the control or/and certification establishment with a petition. Law numbered 1.12.2004 ve 5262, dated 10 th of June 2005 and appeared in the 25841 numbered Official Newspaper directs application. All control and /or certification establishment need to prepare a contract example and needs to inform the committee on this example and a list of the entrepreneurs that it made the contract with. Transition to organic beekeeping is one year and the ones in this duration is not counted towards organic. Certification establishment can extend the transition period or shorten it with committee approval. But shortening can only be the half of the transition period. The reason for this period shortening or extending is presented to the committee with a report. In the migratory beekeeping, methods that could trigger stress while transportation for the bees should be avoided, and the environment that the bees would be accomodated should be suitable to the organic agriculture. In the place where conventional agriculture is carried, organic beekeeping can not be done. In the area of organic beekeeping with 3km. radius⁸⁹, the chemical fight can not be done. The place should be far away from roadways. The area for beekeeping if suitable to the organic beekeeping or not, is checked by the related certification establishment and it is identified for suitability to the organic production. In the places of quarantine, beekeeping can not be done. In the case of many beekeeping enterprise in the same area, all units should be suitable to the organic production. In the organic beekeeping, transition period is not applied in the areas of no agricultural production. Beehives and honeycombs should be suitable to organic properties. Bee races that are harmonious to the area should be selected. Bee colony is made by artificial sons purchase by organically producing enterprise or transfer of bees from traditional producers to the organic frames. This proportion can not pass over 10 % of the colony. It is prohibited to cut the wings of mother bee but old mother bee can be

⁸⁸ Lampkin 1994

⁸⁹ Ministry of Agriculture 2004/1

killed. Area of the organic beekeeping with 3 km. radius is taken under control 1 year ago and mapped. In the place where bees would be accommodated should have enough nectar, clean water source and pollen. In the nutrition of the bees sugar, grape molasses, milk, molasses, glucose, and other conventional products are not used. To the situation where artificial nutrition is a must, can be started after last crop harvest and cut 15 days before nectar purchase. Artificial nutrition, beehive count, and duration is reported.

Beehives are made from trees or from natural materials. Instead of chemical paints; propolis, wax, or plant oils are used on the beehives. New base honeycombs which would be given to the beehives should be organic, laurel leaves should be used to protect puffed up honeycombs from moth, packages should be produced from glass or wood. Enduring race to the illness fight should be selected, mother bees should be renewed systematically, baby bees in the beehive should be controlled in organic beekeeping. In the beehive, there should be left enough honey and pollen. In fighting with Varroa, organic rooted formic acid, lactic acid, acetic acid, oxalic acid, menthol, thymol, eucalyptol and camphor are used. Sterilization of the beehives are achieved by burning “pürümüz” , the cleanliness and sterilization of the beehives used are achieved by boiling water, water and steam, and with natural plant essence.⁹⁰

Establishment of control and certification checks all units of enterprise and at the moment as wanted. It records and controls all entrepreneurs and all information related to them who process products, package, stock, transport, market and with whom a contract was done at the transition period or the ones who completed this period. Prepares a year round report and presents to the Organic Agriculture Committee. In beekeeping, all inputs while in the organic transition should be found suitable to the ecologic conditions as of wax, beehive. Chosen bee races should be selected from suitable ones to the area, enduring ecotypes to the illnesses and harmful insects.

In the transition period of organic beekeeping, all honeycombs inside the beehives should be made of organic honey wax or honey wax which is not made of organically can be used after it is documented that there is not remainder as a result of the laboratory analysis with the permission of certification enterprise. Processing, packaging, wrapping, labeling, stocking, marketing, and transportation of organic products is done regarding some

⁹⁰ Ministry of Agriculture 2004/1

preknown conditions. A logo is put on the products to show that they are organic and they are presented to sale in the same shelves.

3.2. Reasons for Transition to Organic Beekeeping

In beekeeping, the reasons for transition to organic production is not different than other agricultural products. The reason for transition to organic production is not only to protect nature and human health. Since, companies are founded with the aim of profit, daily increase for the demand of organic products and specifically having a thick demand in the developed countries, caused producers to have some part in this market, marketing companies, and distributor firms, to suit their infra-structure to the ecologic conditions. As a result of this, producers can consume the produce that they purchased with safety, and firms can protect their market share in today's world where competition is much harder. Competition recently make the conditions harder and firms can not increase their profit margin as their existing profit proportions also gets smaller each day. In the years of 1970, lack of food for the rapidly increasing population of the world by the existing agricultural productions, lack of nutritions, and use of pesticides called as efficiency in agriculture as a result of this changed the morphologic structures and increased the health risks on the human health with the dissemination of the foods. Ecologic agriculture due to its being a type of production which can be sustained and due to human and environmental health effects, started to gain importance, and started to be supported by establishments and governmental politics.

At the end of the 20. century, productions of whose genetic structure was changed and illness risks caused the increase in the demand of organic produce and occupied agenda of the many international enterprise. In the year 2004, countries imported a total of \$634,507,511,000 agricultural products.⁹¹ It can be seen that the agricultural products are a huge market.

⁹¹ FAO

The first serious studies about the topic organic agriculture was done in EU. In the year 1991, EEC 2092/91 published a regulation. In the following years, the first organic produce by the demand of organic produce has started in the Eagean region by EU. In the year 1992, Organic Agricultural Organization Association was established and all enterprise who function in this topic and exporting firms, firms that give certification became members of the association.

In this term, demand for the organic produce in the domestic market started to increase, Ministry of Agriculture brought some arrangements that caused the people and enterprise who wanted to produce and sell organic productions in the local market to obey some conditions with the related regulations. Even though the reason for transition to organic agriculture is to protect environment main reason is economical. In the international trade, agricultural products are controlled by very firm reviews, countries and unions may need to return their products which are not suitable to their food codex. In the organic agriculture on the other hand, these hardships are eliminated and in all stages of the production, whether or not the production is made paralel with the organic conditions is checked by the authorized firm. Including packaging and distribution channels, produce which produced organically is accepted by whole world. Organic produce has organic production certificate. This sertificate is given by the independent enterprise who are authorized by the Ministry of Agriculture. Certified produce both enables protection from unjust competition and enables the consumer to consume the produce with confidence. Organic produce logos are made by Ministry of Agriculture and delivered to the involved enterprise. Our country is at the top lines of the world list of both colony existence and honey production amount however, have some difficulty while selling its honey. Honey export of our country for year 2005 is 1.669.187 kg and worth is \$4,6 million. (Eagean Export Union) In the same term, honey produce is 73,929,000 kg.(FAO) It can export only 2,26 % of its honey produced. The proportion of export to the production is very low.

For the year 2004, export for organic products is total \$33 million. Organic honey export for this term is 32,470 kg. and its worth is \$95,667.⁹²

For the year 2003, honey export is on the other hand 108,805 kg., and worth is \$292,626 . Organic honey production for the year 2003 is 1100 tons.⁹³

⁹² Eagean Export Union

As the reasons for transition to the organic honey production we can list as to protect the plant, live stock and human health, to reestablish the broken natural balance and environment, to protect the natural fauna, and flora, to prevent the pollution that could happen as a result of agricultural actions, to prevent climate change, to inhibit the destruction of the synthetic and chemical substances which are used in production, on the natural environment, to protect the local resources in agricultural production, and to support the local eco races continuity by supporting regional development, to abate marketing risks of produced goods, to produce quality and secure crops.

Beekeeping has a special importance in the organic agricultural actions. While very precious bee crops are achieved in the fields of organic beekeeping; by pollination, to increase the quality of the vegetal production is achieved. Beekeeping is an important agricultural action which enables environment, agriculture and forest productions to be protected and developed by pollination.

3.3. Organic Honey Production and Stocking

In today's world, in many developed countries, it can be seen that the transit to the organic livestock has been completed. Especially many new developments are made in milk, meat, egg, and honey production. In Turkey on the other hand, organic production in livestock is only made in beekeeping.⁹⁴

Organic honey is a certified production type and various controls in all stages are done by independent control establishment. At the end of the transition period, with the permission of the certification enterprise, organic production is started. In the organic honey production, the distance between 50-250 beehives should be 1 km. No honey harvesting is done from the frames with babies. After the crop that is produced by honey harvest, enough honey that bees can winter should be left to the colony. At least 2/3 of the befiltered frames should be glazed. This situation shows that honey has matured up to the desired level. Containers that honey would be put into, should be disinfected

⁹³ http://www.organic-europe.net/country_reports/turkey/default.asp

⁹⁴ http://www.ekolojiktarim.org/admin/uploaded/20050320_1540_28.doc

according to the organic methods. All hygienic precautions should be taken at the packaging of organic bee products in order to protect the quality of the product. Organic bee products should be stocked at separate places than the conventional products and none of the pesticides should be used while stocking. The humidity, temperature and light changes that could happen while stocking should be given attention. While packaging the bee products that are produced by organic agriculture method, organic product quality should not be broken down. Organic bee products should never be made to wait at the side of the roadways, and they should not be sold there.⁹⁵

Organic bee product is not harvested with the conventional product at the same environment, organic honey is not processed at the place of conventional products' processing. While processing organic product, synthetic and chemical additives cannot be used. Irradiation method is not used. All precautions are taken that could protect the quality of the product. While processing organic product, production, consumption and controlling of foods, decree with law and Turkish Food Codex regulations are adapted. At production, it is not mixed with other products, it is kept separately. Attention should be paid for honey and organic inputs that are produced with organic methods, raw material, packaging half end product substance not to lose its quality of organic product. Packages should be made of specially produced suitable organic coating substance and materials. They cannot be wrapped with plastic preservatives and metal containers. Organic products are stocked separately than the conventional products. When it is not possible to stock separately, precautions that would prevent mixing of organic products and conventional products and the sufficiency of these precautions are checked by the Control of Certification Establishment. These can not be mixed with products that are produced with other methods. While stocking organic products, no chemical drugs can be used. Yearly charts related with depots, are prepared for all properties like capacity, age, air conditioning, these are approved by Control or/and Certification enterprise and one copy of the chart is kept by entrepreneur and other copy is kept by Control and /or Certification enterprise.

In Gökçeada in the year 2003, 1200 beehive is distributed to the 57 producers, and ecologic honey production is started, 3000 box formiset is distributed for fighting with

⁹⁵ www.aricilik.gov.tr

Varroa. In the year 2004, with 35 beekeeper and 995 beehive with bees , honey production is started and 25 beekeeper and 793 beehive has gained organic production certificate. Organic honey that is harvested is 11,060 kg. In this Project, certification, wax processing, and analysis expenses are paid by the head official of district. Efficiency per beehive is 13,95 kg.

Table 3.1 Organic Honey Productions with Respect to Years in our Country

Years		Honey production (tons)	Beehive count	Farmer count
2002	Organic	922	2000	-
	Transition	-	-	-
2003	Organic	1.099	37.653	-
	Transition	215	4.191	9
2004	Organic	937	27.839	159
	Transition	250	10.953	97

Source: Ordu Investigation Institute of Beekeeping

3.4. Organic Honey Production Cost and Determination of Price

Even though less inputs are used in the organic production, labour costs are high since in various stages of the production, the need for concentrated work power is high. Other point which raises costs is that firms who transit to the organic production can not value products organically especially in the transition period. To the Control and Certification Firm, for each product or production field, a price is paid while exporting. This value affects costs since it is at important amounts for each year. In the organic production method, not the cost but quality takes attention.

Total honey that is made in the term 2002-2003-2004 is 526,601 kg. (Eagean Export Unions), and when we think of mean sale price for honey as \$2,36, we can assume that the cost is under this price. If we consider organic honey produce in this 3 year term, 3423 tons of honey was produced, beehive count which was used in organic produce is 82,636. (Table 3.1) Average beehive efficiency is around 20-30 kg. The cost for organic

production is not certain but cost of inputs is high. According to the answers that organic firms gave to the survey, for organic agricultural products the biggest piece in the export, cost has a mean of 40% with 90% and this belongs to the product itself or raw material. Studies show that the other effective thing in the increase of costs is the loss in the efficiency for 10-20% especially in the transition period. Certification expenses are high, too and they are the main effective thing which effects costs.⁹⁶ It can show difference according to the regional efficiency. Price decisions are based on supply demand balance in the market. In the determination of the prices, international sale prices give information to us. Price difference of organic products to the conventional products is due to the high level of the production inputs in our country. Also, unconsciousness of our community on the difference of organic products than the normal products may be the other effective agent. In case of the increase in the consumption, production will increase and the prices will get lower.

In the term 1997-2000, export sales of our country, average organic honey sale price was \$2,44. Occurrence of prices and costs act this way in the international market.⁹⁷

3.5. Organic Honey Marketing Strategies

Those who produce and give to market the organic agricultural products or organic agricultural substance should use logo samples in their packages. Products which does not have these logo on them, can not be given to the inner and outer markets, no advertisements and display can be done, and they can not apply for patent with this words or abbreviations. Labels that has these logos are published by ministry. Label usage authorization belongs to the Ministry authorized organ Committee. This logo is given to the entrepreneurs by ministry authorization to the Control and /or Certification enterprise and to the raw material, half end product or end products that are produced by the related regulations. Organic products are sold in the separate rayons than the conventional products by revealing if something is organic or not. Organic products can not be sold at

⁹⁶ İGEME, Ministry of Agriculture

⁹⁷ Eagean export Union

the main roads, and at the roads where a lot of cars pass by, openly, or at the street side of the store, they can not be sold without an wrapping.

Organic products which are sold without a wrapping, should have a writing on the container that it is kept regarding ingredients. On the organic product, there should be the name of the enterprise of control and /or certification, code number, logo or stamp, certificate number of the product, logo of the organic product. Organic products should be wrapped according to the rules of organic labelling. In the country cycle and import and /or export documents are taken from the related foundation. Then, import and /or export certificate should be taken from enterprise of Control and / or Certification. Import and / or export certificate can only be given to organic raw material and/ or organic products who have organically processed product certificate. In case of import / export ; importer /exporter and enterprise of Control and / or certification should prepare following reports:

All assets of importer and /or exporter and import /export actions, entry points of products and detailed explanation reports of buildings that would be used while stocking of the imported products, related regulations and all pratic precaution reports that would be taken by related importer and / or exporter, reports that include if the import or export would happen and in the case of breach, reports that include the careful precautions, reports that would show that a depot that would be used by importer and /or exporter in case of these depots or enterprise of Control and /or Certification to be in some other country, would be open to checking by an enterprise who was approved by a checking enterprise.

Reports should include all information like the amount of related party, origin and structure, details of control mechanisms of imported and /or exported country, details of production, processing, packaging, stocking, forwarding, buyers, customs and health reports. These reports are kept by enterprise of Control and / or Certification. In the case of import and / or export , importer and / or exporter should show the certificate that was given by enterprise of Control and / or certification in all forwarding processes. All precautions should be taken in case of having imported and /or exported organic agricultural products stocked in the buildings where conventional product or food materials are processed, packaged or stocked , and organic poroductions should be kept

separately from the conventional products and / or food substances, and they should not import and export, buildings and depots that are used by importer and /or exporter should be controlled comprehensively and physically by enterprise of Control and / or Certification, Enterprise of Control and / or Certification should examine related certificates and reports, should take sample for substance analysis, should appoint check report for each visiting, and this report should be signed by the controller who makes checking. In case of import and / or export, importer and / or exporter should attest buildings, reports and certificates to the enterprise of control and / or certification.

In case of import and / or export, all information about the label of the product and ingredients with their originals and their approved translations, should be given to the enterprise of control and / or certification.

In case of import and / or export, all conditions of the related regulations about production, processing, packaging, stocking, labelling, forwarding, marketing, and ingredients should be obeyed.

Export of organic products are included in the “product list that are dependent upon the recordings” of Foreign Trade Undersecretariat and Eagean Export Union General Secretariat hold down the application by being a coordinator. For this reason, enterprise of control and / or certification should report a sample of the import and / or export documents to the committee, and another sample of it to the eagean Export Unions in every three months. Originals of the invoices that are belonging to the given certificate of import and / or export products, and Turkish copies should be transmitted to the committe in every three months. Enterprise of control and / or certification identifies the conditions of transportation of the product beforehand. Organic products can not be made to wait near the side of the roads.

Interested entrepreneur takes the precautions if organic product would be moved inside a vehicular which uses fuel while transportation of the organic product. Products that reaches to the consumer without a package, can be transported with a double sealed and protected containers and labeled if they are transported with a vehicular which uses fuel. Organic products can only be transported with suitable package and containers and closed , by preventing the ingredients to be mixed and labeled.

While transporting organic product, inside the country circulation certificate from the related enterprise is taken. On the certificate, identification and address of the producer, processor, packager, and all other mediators' and enterprise of control and / or certification, product logo, all necessary stamps should be seen. For the organic product which is transported in order to import and /or export on the other hand, a separate certificate of import and / or export is arranged.⁹⁸ In addition to this, in our country organic product sale stores take place in the specific points of the big city. In these types of places, there may be opportunities for marketing. According to the assumptions, the number of these places are around 100. In these places, sales are done from a unique center.

3.6. Organic Honey Sale and Importance of Trademarking in the Foreign Trade

Our country is an advantaged country among the countries which are in the export list to EU who is the biggest foreign purchaser on the topic of organic products. Foreign sale amounts give ideas to us even though they are not totally right. In our country, Egean Export Union recordings gives the foreign sale figures.

In the tables, sale figures for different years are given.

Table 3.2 Organic honey export sales according to years

Year	1997	1998	1999	2000	Average
Honey (kg)	20 000	105 131	78 700	20 400	56 058
Total (\$)	53 453	271 882	183 091	38 202	136 657

Source: Ege Export Unions Secretariat Recordings, İzmir, Various years

Table 3.3 Countries to which our country exports organic honey

Country	Quantity Kg.	Total \$	Year
GERMANY	32.470	95.667	2004
GERMANY	64.392	188.127	2003
ITALY	42.000	87.862	2003
JAPAN	1.883	15.426	2003

⁹⁸ Ministry of Agriculture organic beekeeping marketing regulations

SINGAPORE	530	3.211	2003
GERMANY	384.825	848.083	2002
NORWAY	501	3.424	2002
Total	526.601	1.241.800	

Source :Eagean Export Unions

As is known, competition conditions that becomes harder each day, and changing consumption habits, forces countries and enterprises who wants to have a place in the international market to create powerful brands which means more value added and more market share. On the other hand, trade marking has a special importance regarding the sectors in our country' s economy. Since products of firms who produce branded products and sale are controlled meticulously, possible negativity will be prevented. Especially, in the honey sector as a result of the problems that affect our country the export of honey sector came to a point of nowhere. For this reason, in case of quality problem in the export of organic products, even though the enterprise who gave the related certificate and export firm being responsible, since it is a Turkish product, prestige of Turkish beekeeping sector is shaken and it is affected negatively.

It is obvious that countries like China are a big threat for our country. Beside of threats for our country that will come with year 2005, turning it to an opportunity and the only way for handling with these countries that make use of competition advantage based on cost per price, differentiation of product and trademarking, advanced technology usage, quality production and certainly making of a positive image of "Made in Turkey" in the international markets dependent on these.

Intensive programs in the subject of publicity are held by our Foreign Trade Undersecretariat both domestically and in foreign countries.⁹⁹

3.7. Problems of Organic Honey Production

⁹⁹ http://ihracat.dtm.gov.tr/dtm/index.php?module=content&page_id=467

High certification fees and a fee are paid to Certification Company for production land, each production, and export. Because these fees are high, it is making difficult for small and medium sized businesses to take part in organic production market. Because of this, rather than developing independent projects, producers can be certified under cooperatives or unions. Fees paid to certification and audit companies are 5000 to 20,000 Euro depending on the project. In domestic market, organic products hold at high price are not demanded enough, this affects the cost in the production.

Organic products are certified for each phase. Because process cannot be made with a certificate of production, medium sized business have difficulties coping with costs. In this case, their chance for competition is lessened.

Other problems.

- Shortage of technical knowledge and personnel,
- Insufficient support,
- Under production because of short local market demand,
- Land problems encountered by migratory beekeepers,
- High input costs and scarce inputs,
- Dependency of organic production certification owner but not certified process enterprises on organic process operators, consequent problems of marketing and low price.
- Busy procedure and personnel allocation for these activities,
- Obligation of an organization dealing with both organic and conventional beekeeping to have double stocking, production and shipping procedures. In case the marketing and fair organization planning is not well planned, and sales do not meet a number, profitability is lost.
- Price competing between traditional natural products and organic products.
- Because of tight regulations, reduction of certified production in domestic market.

3.8. Support Programs Towards Organic Beekeeping

Supports given to conventional beekeeping and to organic beekeeping by Ministry of Agriculture are equal. Support for queen bee and support for filtered honey are applied the same way. Besides, using regional programs aiming to develop organic beekeeping are applied under control of local authorities. Gokceada District Head Office Project can be given as an example.

In this project, procurement of hive, organic fight method against diseases and certification fee are supported by government. In 2003, 57 producers participated in this project with 1200 hives, 25 beekeeper and 793 hives acquired organic product certifications. 11,060 kg of organic certified honey is collected in the scope of the project. In Ardahan's Posof district, 35 beekeeper members of the union with 2469 hives are supported by Province and District Agricultural Directorship. It is recorded that because the region is a center of Caucasian Bee, which is very suitable to beekeeping and thanks to the natural habitat of the region and 100,000 colonies with 30kg per colony fertility, the region has a potential of 3000 tons of ecological honey.¹⁰⁰ Besides, beginning from February of 2004, enterprises producing organic agricultural products and inputs are provided with opportunity to use credits with interest rates discounted 60% less than the rates applied to agricultural credits.¹⁰¹

3.9. Control and Certification

Ecological agriculture is a controlled and certified production model. In our country, certification and audit of ecologic agricultural operations are committed by private organizations authorized by Ministry of Agriculture. These organizations audit whether the resulting product of organically producing person/organization is having an organic quality or not. Some common certification companies are IMO, ECOCERT, ETKO, SKAL, BCS and EKOTAR. In Turkey, as a certification and audit organization in the field of organic honey production, companies like SKAL and IMO are in service. Audit and Certification Company gives information concerning organic production regulations to the company applying to him and begins with the signing of contract

¹⁰⁰ <http://www.ardahantarim.gov.tr/OrgBalProjesi.htm>

¹⁰¹ http://www.iib.org.tr/IIB_Portal/DesktopDefault.aspx?tabid=1056&CatalogID=161&mid=2032

between company and certification organization. Certification organization declares newly starting organic actions of the entrepreneur to the Ministry of Agriculture. Certification organization, according to the information acquired, coordinates audit plan, cites what organic agriculture is and the responsibilities to the producer. Certification organization makes at least two audits in a year.

These visiting are done either with knowledge or without knowledge. Informations gathered in these audits are sent to Organic Agriculture Committee from Certification Company as a report.

After completion of agricultural audit comes processing audit. Entry and exit of the product in the warehouse, storage way, sample collection and analysis report, schematical representation of production, packaging, hygiene of transport and facility are audited. After this operation, unprocessed product is given Organic Raw Product Certificate, and processed product is given Organic Processed Product Certificate.

If producer and processor companies are different, both companies should have a project certification. Organic producer certification owner organizations can only market its products over an organic processing certification owner company.

Audit and certification fee is based on the time spent and paid to Audit and Certification company. Fees take place in the appendix of signed agreement.

PART IV

4. ORGANIC BEEKEEPING IN EUROPEAN UNION AND IN THE WORLD

4.1. Status of Organic Agricultural Product Markets in the World and in European Union

Ecological agricultural products gained great importance among natural agricultural product systems in USA and Europe recently. Organic production first emerged in plants then continued with considerable improvements in stockbreeding. It would be more convenient to handle the environment in entirety and not keep apart one from the other. Livestock fed by organic methods contribute fertilization of nature by means of manure and pollination, which is necessary for organic production. Undoubtfull, USA and Canada are the most important countries in terms of organic stockbreeding. These counties recorded considerable improvement in organic stockbreeding and organic animal product processing industries have been constructed. In these countries, after it was discovered in the laboratory conditions that some hormones may cause cancer in human and animals, especially demand for organic meat and milk has increased. Survey studies show in 2000, in USA, \$3.9 billion is spent for organic foods in conventional retail sale marketplaces. Organic foods are found in 20.000 of natural food sales points and in 73% of other marketplaces.¹⁰² In 2002, organic food market's value is of \$23 billion. Organic production becomes common globally, whereas consumption is mostly in developed industrial countries. North America and West Europe have the highest share.¹⁰³

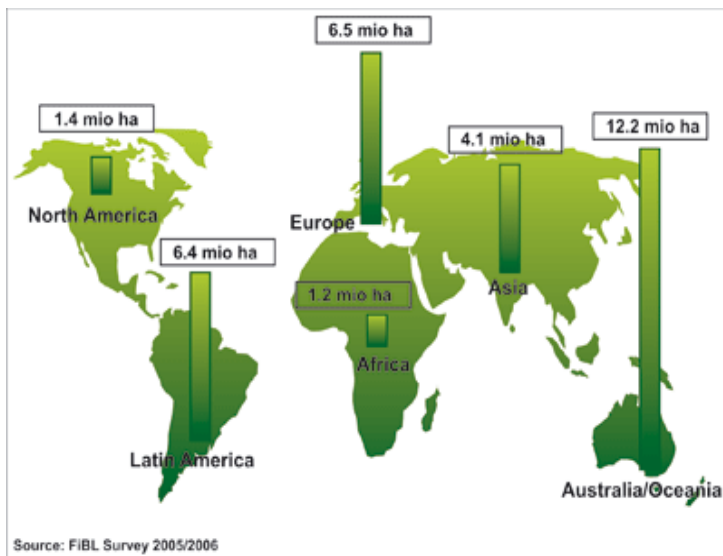
Because of the price disadvantage of organic products, it is solely restricted to developed countries. It has been an uneasy market for organic foods in developing countries where the majority of the population has lower power of purchase. Those who prefer organic foods are generally people living in urban areas, belonging to middle and high-income group, well educated, paying attention to their food purchases.

¹⁰² Recent Growth Patterns in The U.S Organic Food Market Carolyn Dimitri, Catherine Greene
ers.usda.gov/publications/aib777/aib777c.pdf

¹⁰³ World of Agriculture Statistics and Emerging Trends 2004 Helga Willer Minou Yussefi
http://www.soel.de/inhalte/publikationen/s/s_74.pdf

In the high-income groups of nations like China, South Africa and Brazil, organic food market is emerging. Mostly, in Asian and African countries where organic production farms cultivate for export, organic products turned out to be a demand for their own regions too. Meanwhile, organic food market gradually becoming a global market changed its direction with the fluctuation of US Dollar prices in American markets since 2003. In 2004, Global organic food market has a size of \$27.8 Billions.

Table 4.1 Organic Agriculture Fields in the World



Source: FIBL

In 2006, Organic Agriculture is performed on 31 Millions of hectares of fields. China has made the greatest progress in this matter and certified 3.5 millions hectare of rural land for organic agriculture.¹⁰⁴ Countries that have considerable size of organic agricultural fields, except for wild fields, are Australia (incl. New Zealand, Fiji, Papua, etc) 12.1 millions ha, China 3.5 millions ha and Argentina 2.8 millions ha.¹⁰⁵ Organic agriculture ratio over total fields are: Australia 39%, Europe 21%, Latin America 20%, Asia 13%, North America 4% and Africa 3%. West Europe market is the largest organic food

¹⁰⁴ <http://www.organic-europe.net/world/2006-main.asp>

¹⁰⁵ The World of organic Agriculture statistics and emerging trends 2006
<http://orgprints.org/5161/01/yussefi-2006-overview.pdf>

market. According to 2002 figures, estimations are of \$10.5 billion. In Australia and Oceanic Countries 2662 farmers grow organic food on 12.1 millions ha, mostly growing fruits and vegetables throughout the year. Kiwi and apple is the largest production. Over 70% of organic foods produced are bought by Western European countries such as England, Netherlands, Germany, Switzerland, Italy and France. Organic agricultural support is not available.

In Latin America, certified organic agricultural production is made over a land of 6.4 millions ha, organic agricultural support is given in some countries of this region in the form of production, marketing and expositions appearance.

In Europe, Organic Agriculture is performed with 6.5 millions ha and 167.000 farms. In 2004, within EU, Organic Agriculture is made on 5.8 million ha (3.4% of total agricultural fields) and 140.000 farms.

In North America, organic Agriculture Fields are 1.4 millions ha (0.3% of total agricultural fields) and 12.000 farms hosted organic agriculture. This is the largest organic food market in 2005 with \$14.5 billion.

In Asian continent, organic agriculture is made over 4.1 millions ha, in 130.000 farms. China, India and Russia are dominant countries in organic agriculture. China's market is the most developed with a growth of 30%.

Indonesia is also a significant market. Trade is made by means of retail stores, supermarkets and some other sale channels from India's rural areas to Tokyo.

In Africa, 1 million ha of fields are identified as organic agriculture fields. In this region, organic consumption is very limited. Tunisia is the only country producing under EU standards certification. Egypt and South Africa made improvements regarding to certification.¹⁰⁶

Within EU, products grown upon local regulations and approved by consumers of highest market shareowner countries like Norway and Sweden can be found in sales points. According to experimental studies, organic food consumption is directly relational to income level, other factors being environmental pollution, polluting additives in conventional agriculture etc. depending on the country. It is expected that demand of industrialized countries to organic food will increase by 20% in forthcoming years.

¹⁰⁶ <http://orgprints.org/5161/01/yussefi-2006-overview.pdf>

Although the production quantity is based on the demand today, production is estimated to determine the market in the future. At this stage, large organizations with strong infrastructure will have better positions in global markets. Until 2010, estimations are that organic food market will grow up to \$61-94 billion and global organic food market will have a share of 3.5-5%.¹⁰⁷ Global organic sales are \$27 billion in 2004 and \$30-31 billion in 2005. Target market countries in these terms are America, Germany, Italy, France, England, Canada, Japan, Switzerland, Sweden, Netherlands, Denmark and Australia.¹⁰⁸

4.1.1. Improvements in the Structure of Organic Production Marketing in European Countries

In the world, ever increasingly developing organic agriculture is seen as a major investment instrument of future. EU organic food retail market sales are \$10-11 billion in 2003. 10-15% of annual growth is predicted. Within EU, the greatest organic market of \$1.8 billion is owned by Germany (source: Organic Consumer Association) Australia owns the largest organic agricultural farms and exports organic products mainly to EU member countries. Organic foods are conveyed to consumers by different means in EU countries. In Netherlands, 96% of organic products are sold in organic sales stores, the percentage is lower in other countries. Until a couple of years ago, organic foods aimed for a fraction of population, now average consumers tend toward organic foods. Predictions are that, in the next three-five years, organic food market will address larger number of people and market share will extend increasingly.

4.1.1.1 Organic Agricultural Products Market and Organic Beekeeping in Germany

As of 2004, in Germany, there are 16.603 farmers on 767.891 ha of fields certified to EU Organic Agriculture regulations. These are equal to 4.1% of total farms and 4.5% of total agricultural lands.¹⁰⁹

¹⁰⁷ http://www.fao.org/documents/show_cdr.asp?url_file=//docrep/005/y4137e/y4137e03b.htm

¹⁰⁸ http://www.unep-unctad.org/CBTF/events/arusha/Draft%20ITC%20UNCTAD%20demand%20study%20_25%20FEB%2006.pdf

¹⁰⁹ www.unep-unctad.org

Majority of farmers are member of the Biolan and Demeter, largest and oldest association of the country. Other associations: Naturland, Biokreis, Bundesverband Ökologischer Weinbau (Federation for Organic Viticulture, ECOVIN), Gäa, Ecoland and Biopark

In June 26th 2002, organic product farmers, organic food processors and organic sellers founded Bund "Ökologischer Lebensmittelwirtschaft" (BÖLW, Organic Food Industry Federation) to represent organic food sector as a whole.

In Germany, some organic food regulations are firmer than EU regulations. According to EU regulations, partial organic agriculture is allowed in a farm, whereas in Germany, entire farm should convert to organic production. This means an organization that produce organic honey cannot produce conventional honey at the same time. They should readjust the entire system to organic composition. Transition period of 2-3 years to organic agricultural production initiative is hard, at least, products produced in 12 months period can be sold as a transition product, for this reason, they have to find alternative marketing channels to sell these products. In 2004, Organic Food market in EU marketplace is approximately 11 billion Euros, Germany has the largest share with 30% in EU. ¹¹⁰Germany is Europe's largest market with a size of \$3.6 billion This is 2.7% of total food market. ¹¹¹ In 2002, a scandal of remnants of nitrofen, a pesticide banned for poultry, knocked out organic food sales. Some improvements have been observed later.

In Germany, organic foods are sold by private chain markets. Companies such as Rapunzel and Naturata make production, import and distribution of organic food. They have been suppliers for organic food stores. Food additive companies have also began to produce organic additives. Some vegetable and Fruit products' internal demand is fulfilled, some others are imported. Consumer demand for organic milk, yogurt and cheese is especially high.

Floury organic products are sold by some supermarkets with their own landmarks. Organic meat and meat products have collected demand notably after BSE crisis. Honey and marmalade kind of ready to consume group encountered great interest of consumers. It is estimated that organic product processing demand will increase in this area. Because organic production does not meet consumer demand in Germany, a number of organic

¹¹⁰ http://ec.europa.eu/agriculture/qual/organic/facts_en.pdf

¹¹¹ Organik tarım ürünleri dış Pazar araştırması Gülay Tarakçıoğlu 2004
http://www.ekolojiktarim.org/admin/uploaded/20050319_1844_93.pdf

food, namely vegetables and fruits are imported from Israel, New Zealand, Spain, France and Italy.

Germany is the third biggest country in the world after America and Japan, and the biggest in EU. Second biggest exporter country in the world, largest market in the world in food and beverage.¹¹² For this reason, this is a fundamental market that concerns our country in the field of food consumption.¹¹³ In Germany, 89.216 beekeepers work with 865.977 beehives. Germany is a EU country with more honey imports than its production. Imported product are marketed via wholesalers and chain stores under their own brands. Organic honey is demanded by the special rayons of these stores. Honey are imported from America, Argentina, China and Mexico in barrels than processed and packaged in jars to attract consumer attention, then re-exported to other countries such as Australia, France and Netherlands.¹¹⁴

List of some important organic food wholesalers, importers and distributors:¹¹⁵

These wholesalers have the capacity to process and distribute food within Germany. Because of price advantage, imported honey is shipped in larger barrels in bulk and processing and packaging is made in their own facilities to accommodate consumer taste.¹¹⁶

4.1.1.2 General Status of Germany Organic Food Market and Marketing Channels

Organic farmers say, like other conventional farmers, that marketing is the most difficult part of farming. Finding profitable marketplaces, lack of knowledge in marketing research and in other details for success are most influential. In Germany, organic product distribution is made via conventional distribution channels and also by means of reform houses specialized in this field. Foods sold in there are often processed.

¹¹² <http://sea.agr.gc.ca/europe/e3039.htm>

¹¹³ http://www.beekeeping.com/_menus_us/index.htm?menu.htm&0

¹¹⁴ <http://www.beesource.com/news/hso/hso98.htm>

¹¹⁵ http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/004/Y1669E/y1669e09.htm

¹¹⁶ See appendix, table 05

Supermarkets provide 40% of organic food market in Germany, 80% in England and 85% in Denmark.¹¹⁷ Organic food market is very increasingly growing. Organic honey market is rapidly evolving with the environmental consciousness. Growth of food sector affects other conventional production in the sector and causes shrinkage in the volume. In Germany, BioFach organic trade fair organized in Nuremberg every year at the end of February is the one of the best ways to enter market. BiFach is accepted as the largest fair in organic food market. It is very crucial to make presence in this fair for those who intend to make trade in Germany. In 1999, 1300 participants exhibited their products to 21.750 visitors, of which 20% coming from out of Germany. Seminars held during the fair are also informing about organic sector.¹¹⁸

Food distribution channels Market Status in Germany:

Conventional Retailers	: 39-48% (1.2-1.8 Billion Euros)
Producer Brands	: 14-17% (400-600 Million Euros)
Independent Retailers	: 14-17% (300-700 million Euros)
Alternative Distribution Channels	: 16-20% (1.8-2.0 billion Euros)
Natural Product Selling Stores reform houses	: 30-37% (1.07-1.1 billion Euros)
Direct Marketing, weekly marketplace, open-air stores:	14-18% (450-600 million Euros)

In 2002, retail organic food sales are 890 million Euros and increasingly making its place in the market.¹¹⁹

Conventional distribution channels, tegut, feneberg ve Bremke & Hoerster, Rewe, Metro have considerable market share in organic foods.

Supermarkets selling organic products, superbiomarkt AG, Alnatura GmbH, Basic AG ,Komma AG, Herrmannsdorfer Landwerkstaetlent, Füllhorn, 1000-körner-Markt ve Biolompany are also increasing their branch store counts.

Tengelmann and Rewe is the first group tending to retail products and leaded the others.

¹¹⁷ ftp://ftp.fao.org/paia/organicag/2005_12_doc04.pdf

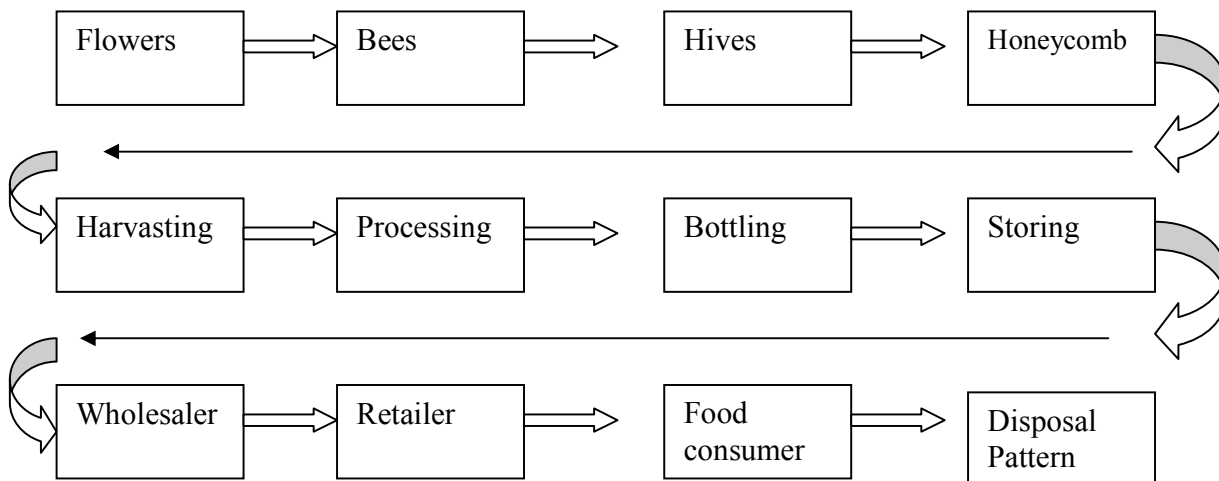
¹¹⁸ <http://www.fas.usda.gov/gainfiles/199912/25546541.pdf>

¹¹⁹ http://www.ekolojiktirim.org/admin/uploaded/20050319_1844_93.pdf

Honey production system / marketing system

Phases until the honey arrives at consumer:

Table 4.2



In Germany, one of the factors badly affecting food sales is the multiple pricetagging of foods. In 2004, after new regulations set by government 1400 companies used new logo on almost 30.000 products. This logo can be used with foods produced compliant to EU regulation 2091/91. This logo assures consumer that the product is genuinely organic.

In Germany, organic food sector consist of those main sectors:

- Raw material for production and food additives
- Packaging service for retail sector
- Catering and corporate food sector

According to research made by SOL, organic foods reach customer in those ways:

Direct sales via Farmer / Producer channel: 17%

Bakery, butcher, greengroceries, and other small shops: 7%

Health food stores, reform houses 8%

Special shops and supermarkets 26%

Supermarkets and fast food restaurants 35%

Others 6%¹²⁰

Organic food products are still in development stage and it is expected to develop more in coming years. Some companies offer organic foods in their restaurants. In Germany, before the end of 2005, 750 canteens acquired organic certificates.

Apart from organic food, organic products tend to be used in health and cosmetics sector in Germany.

Organic food distribution channels in Germany¹²¹

- Importers, packaging and distributors:

- Chain Stores¹²²

Regarding to EPOPA (Export Promotion of Organic Products from Africa), Germany imported 2500 tons of organic honey in 2004. 5000 tons in 2005, World market is 10.000 tons.¹²³

Honey, so called table honey including organic honey is sold in glass or plastic jars. Industrial honey is sold to pastry and candy maker sector.

Honey is usually imported in barrels of 300 kg in bulk. Glass jar packaging is too heavy for transporting. Mixing with other regions honey makes new kinds of tastes available.

¹²⁰ demand for organic products from east africa Mr. Rudy Kortbech-Olesen http://www.unep-unctad.org/CBTF/events/arusha/Draft%20ITC%20UNCTAD%20demand%20study%20_25%20FEB%2006_.pdf

¹²¹ <http://www.unep-unctad.org> see appendix

¹²² see appendix

¹²³ http://www.unep-unctad.org/CBTF/events/arusha/Draft%20ITC%20UNCTAD%20demand%20study%20_25%20FEB%2006_.pdf

Another problem is the destruction of useful parts of honey, not only remnants, during the process of filtering. Besides, cheap price caused increase in demand to this kind of honey especially from industrial sector.

Organic honey exporter countries:

Latin America : Argentina, Brasil, Chile, Guatemala, Mexico, Uruguay

Africa: Tanzania, Zambia

Asia: India, Vietnam

Oceanic Countries: Australia, New Zealand

Europe: Switzerland, Turkey Various Union Countries

4.2. Support Programs Towards Organic Beekeeping in European Union

In EU, governmental support is based on three basic perspectives. Firstly; it should comply with competition rules, Secondly; government support should be compliant with common agricultural policies of the union, Thirdly; it should be compliant to international engagements of the union, especially obligations of World Trade Organizations in terms of agriculture.¹²⁴ In EU, according to regulation 1221/97 paragraphs 6, committee presents a report in the subject of application of support¹²⁵ The intention of this offer is amelioration of marketing and production conditions of the honey. In this respect, it includes subjects like varroa fight, technical information and hive stocks. Member states present their reports about the sector and statistical information to the committee.

In Germany, there are subsidies toward organic agriculture. In 2004, support given to organic agriculture is 120 million Euros. Subsidies are given for land and crop. 210 Euros per hectare to start and 160 Euros per hectare to maintain is given to farmers who enter organic agriculture. Additionally; 35 Euros per hectare and 530 Euros per farm at maximum subsidy is given to farms that produce conforming to EU regulations.¹²⁶

¹²⁴ http://ec.europa.eu/agriculture/stateaid/index_en.htm

¹²⁵ http://europa.eu/eur-lex/en/com/pdf/2004/com2004_0030en01.pdf

¹²⁶ http://www.bmelv.de/cln_044/nn_757134/EN/05Agriculture/OrganicFarming2006.html__nnn=true

EU spends 70-80 million Euros each year for the development and research of organic agriculture. (Four times the amount spent in the world) ¹²⁷ Germany, Netherlands, Switzerland and Denmark spend 60% of the amount spent for research. Researches made for organic agriculture are mostly about livestock breeding, food processing, food marketing and food retail.

There are some organic agriculture supports in Denmark. Maximum subsidy cannot exceed 5000 Danish Kron per hectares per farm. Generally, 600 Krons is paid per hectare.

In Hungary, during the transition to organic agriculture period, membership, consultancy and analysis costs are paid. Besides, payment per hectare is also made.

In Spain, subsidies are more tightly regulated. Support is variant according to crop and region. In the transition period 80% , in the following 3 years, 60% of the expenses are paid. Payments are made constantly and on the basis of crop and year (350 Euros). In 2001, Spain paid 31,705,690 Euros to Organic Agriculture farmers. (22,945,110 Euros is paid by European Agricultural Guidance and Guarantee Fund EAGGF)

In Greece, there is no state support. According to EU Organic Agriculture regulation, payment is made for crop per hectare.

In Austria, 50% is paid by EU, 60% is paid by state regarding to the region. In the agriculture land, payment is made per hectare. ¹²⁸

In European countries, support for organic agriculture is often made.

Implementation is done according to 2092/91 regulations. In different countries, different support programs are applied considering per hectare, per crop, per land and the transition period. Transition to organic agriculture is intensely supported in member countries. In EU countries where conventional agriculture stands, tax rates are kept high on some pesticides.

¹²⁷ <http://www.fibl.org/aktuell/pm/2005/documents/0222-biolandbau-europa-background.pdf>

¹²⁸ www.fibl.org

4.3. General Status of European Union Organic Beekeeping Organizations

Regulations that organizations should comply with in Organic Beekeeping are disclosed with regulation 2092/91 in EU, and regulations published by Ministry of Agriculture on this subject contain similar issues. In EU, In year 2000, organic agriculture represents 3% of total agriculture. Each year a development of 30% is established. With the application of Regulations about agriculture in 1992, thousands of farmers made transition to organic agriculture.

Beekeeping is done within EU especially by Spain, Germany and France. Their production are 33,000, 26,000 and 25,000 tons respectively. If we act with 3% approach, total honey production is estimated to be 2500 tons. According to 1999 figures, count of beekeepers in EU is 460,000. 14,350 of these are professional beekeepers with at least 150 hives.¹²⁹

Same sources indicate count of beekeepers as 470,000 in 2003 and 15,270 out of them are professional beekeepers. According to these inputs, total beekeeping raised by 2%, professional beekeeping raised by 6.4%. In the 1999-2003 period, count of hives increased by 2.5% and became 8,877,209. Professional beekeepers have 3,880,000 hives. 43.7% of hive presence within EU are owned by professional beekeepers. Professional beekeeping rates are high at Spain (74%), Greece and Portugal (over 50%). These three countries own 74% of total professional hives in EU.¹³⁰ Generally, organic beekeepers are concentrated in these regions. In the world, beekeeping is a scattered kind of agricultural production. According to some EU expert reports, increase in hive counts is more evident where beekeeper count remained fixed. This is the situation of producers. Honey is offered to the market by two ways. Table Honey and Industrial Honey. In this stage, packager, industrialist and importer organizations take place in honey market. Packers are generally small organizations with packaging and processing facilities. They sell directly to consumers as retail. Packaging cooperatives, they are beekeeper groups. They purchase the honey, import if needed and market them under their own brand mark. They purchase honey from other packaging group members and importers.

¹²⁹ europa.eu/eur-lex/en/com/pdf/2004/com2004_0030en01.pdf

¹³⁰ http://europa.eu/eur-lex/en/com/pdf/2004/com2004_0030en01.pdf

They have their own brand. They produce with another brand and sell to industrial and retail sector. In Spain, half of the honey produced is sold directly to consumer and retailer. Of the honey produced, 35.7% is sold to consumer and 22% to retailer directly. In EU, producers sell 50% of the honey by direct sale and 38% of it indirectly. EU producers prefer direct sale because of high profit rates.¹³¹

4.4. European Union Organic Product Market and its Properties.

Organic products are commonly consumed by end consumers. A number of experts say that the market is still very narrow, estimations for 2005 market shares are 5-10% for each product. Germany, according to figures, is definitely the largest market. Greatest growth rate is of England with 25-30 %. Greatest market share is of Denmark, Sweden, Austria, and Switzerland. Consumption intensified in northern Europe. Consumption decreases going southwards. Marketing channels are different depending on country.

In Germany, direct sale is performed for a long time by means of organic product sales stores, in Sweden and Denmark it is sold in supermarkets for a very long time. In the countries where organic products are sold in supermarkets, growth and percentage are especially higher than in the countries where they are sold in product stores. The reason is that customers coming to supermarkets see the product and buy at least to give a try. Major factors on high market share are retail sales, unique logo, and loyalty of organic food processors to their work. Support of customers will be the most important factor for the improvement of this sector. In Italy, Denmark and Austria, organic farm advertisements and information may help increasing consumer figures.

International Trade Center report (ITC 2001) indicate that organic food market is becoming a considerable work branch in the world market. Greatest countries according to market shares are America, Germany and Japan.

¹³¹ europa.eu/eur-lex/en/com/pdf/2004/com2004_0030en01.pdf

Table 4.3 European Union Retail Sales estimation in year 2000

Country	Turnover in Million US-Dollars 2000	% of total food sales	Yearly expected growth rates
Germany	2,100-2,200	1.6-1.8	10-15
Italy	1,000-1,050	0.9-1.1	10-20
France	800-850	0.8-1.0	10-15
UK	1,100-1,200	1.0-2.5	15-20
Switzerland	450-475	2.0-2.5	10-15
Netherlands	275-325	0.9-1.2	10-20
Denmark	350-375	2.5-3.0	10-15
Austria	200-225	1.8-2.0	10-15
Sweden	175-225	1.0-1.2	15-20
Total	7,000-7,500	-	

Source: ITC 2001 ¹³²

4.5. Factors Gaining Importance in the Purchase of Organic Food Products and Honey

Honey comes with two kinds namely consumer honey, so called table honey and industrial honey. Table honey is consumed mostly in houses, besides it is used as sweetener in meal recipes, beverages and pastry. 85% of honey consumed is the honey offered to consumer. Consumer honey is assessed according to the country it is produced, its color, its mildness and from what kind of plants it is made of. Honey is also used in pastry and beverage, cosmetics and chemistry industries and tobacco sector. Rate of industrially used honey is 15%. This ratio is variant in member countries but the highest usage rate is in Italy with 40%. Organic products are highly demanded by consumers. Three most important factors of tendency to organic products are health looks, weight loss and energy supply. Other factors affecting preferences are the benefits of organic food and agriculture on environment, benefits of sustainable agriculture and food, animal comfort, pesticide usage and nutrition. Organic foods are mostly preferred by 25-49 age group, owner profession, sensitive on environment and animal rights, and affected from

¹³² http://ewindows.eu.org/Agriculture/organic/Europe/of_in_europe/#5

what they hear around.¹³³ It is also an important factor in the demand for organic food that 40+ age group remembered freshness, diversity and quality in their environment in their childhood. Besides, as a result of modern agriculture methods, diseases infecting animals and contaminating human beings also increased demand for organic food. In the nature an environment, pesticides and chemicals that resulted in damages not only in food but also other sectors conveyed to organic consumption. Personal health and especially care for children takes the first place in the demand for organic products by consumers. A survey study made in Germany and England state that health is in the first place in Germany with 70% and in Germany with 46%. In Germany, environment with 10-30% and taste with 13-14% takes second and third places respectively.

In England, health is followed by taste with 40% and animal rights with 26%. Organic livestock breeding is preferred at the first place by animal lovers in Europe because it provides open, spacious and sunny lands with breeding.¹³⁴ There are some negative factors that affect consumers buying organic product. A number of consumers does not believe that products sold as organic products are not genuinely organic products. High prices of organic products affect the purchase. Generally they accept to pay 20-25% more but in some marketplaces, prices are higher than normal by 40%, this affects them negatively. Because of price competition, organic food prices are increasingly falling. Conventional market customers insist on price and they do not want to pay more than an amount to organic foods.

The fact that organic product selling markets are not very common and they keep their product groups limited also badly affects. Consumers have to wander different places for the product they wanted. Tagging of organic foods and lack of their ingredients also badly affect. EU Regulations define organic food in a best way, but tagging is not neatly defined. A lot of retail chain print their own brands. These tags do not use words meaning organic such as "eco" or "bio". To solve this problem, new tag is publicly presented in 1999. This tag is used for the products produced in Germany..¹³⁵

¹³³ http://www.organic-europe.net/country_reports/france/default.asp

¹³⁴ egelihracatcilar.com

¹³⁵ <http://www.fas.usda.gov/gainfiles/199912/25546541.pdf>

4.6. Financing of Organic Beekeeping

According to 2. act of the regulation 2300/97, each country disclose their programs to commission each year until 15th of April. In the report presented by commission to the Council and Parliament, general informations about honey sector and information in EU takes place. In the report, estimated costs should be indicated and financing plan should be provided. Member countries are provided with financing with respect to the share of estimated hives in the union, according to 2300/97 Regulation Appendice 1. Approval decision concerning honey becomes operational each year on the first day of September. In the 2001-2003 period, Spain, Greece, Italy and France who own the greatest count of bee and colonies used more than 70% of the financing. According to 2003 program, union financing is planned to used by Spain by 26.5%, France by 16.2% , Italy by 14% and Greece by 14%. Varroa battle is the largest expense item with 41%, coming next, technical support with 26%, migratory beekeeping and more fertile lands with 20%, honey analysis with 7% and finally research programs with 6%. According to programs, technical supports and migratory beekeeping expenses increased heavily while there has been a little increase in varroa battle and a fall in analysis and research operations.¹³⁶ In 2003, applications for financing of beekeeping in the union are: Greece for 34%, Italy for 17%.

For varroa battle Spain 28%, Portugal 14%, France 11% respectively.

Migratory beekeeping expenses of the union are spent by Spain with 50% and France with 18%. Laboratory Analysis on control expenses are made by France with 34% and Spain with 25%,

Out of the union expenses to improve honey quality and research projects, France is planning to take 47% and Germany 14%.

According to the regulation 2300/97 act 2., honey program completes until 31st of August each year and payments are made until 15th of October. According to 2002 reports, 83% of the program realized. Denmark and Finland conformed to program completely and acquired a considerable amount of financing from budget. Spain completed 90.2%, besides France and Greece, although it made a considerable amount of

¹³⁶ europa.eu/eur-lex/en/com/pdf/2004/com2004_0030en01.pdf

budget, did not use it. They could use 77.8% and 68% of their estimated expenses respectively. In the scope of EU, 15-17% of expense was not used.¹³⁷

4.7. Foreign Trade Balance of Organic Product in European Union and in The World.

In 2004, organic food sales are \$27 billion, in 2005, estimations are \$30 billion. Organic agricultural land is 31,502,786 hectares.¹³⁸ In 2004, agricultural product imports in the world is \$634,507,511,000, exports are \$604,329,383,000 and total agricultural land is 4,973,406,000 hectares¹³⁹ In 2003, EU organic product sales are \$13 billion. Organic agricultural land is 4% of total agricultural land with 5.1 million hectares.¹⁴⁰

In 2004, world organic retail sales made 4.25% of imports and 4.46% of exports. Total organic agricultural lands in the world are equal to 0.6% of total lands.

Organic agriculture is increasingly growing and it is estimated to grow more with the improvement of education level and income in the developing countries.

In 2005, organic honey import in EU is 5000 tons, and 10,000 tons in the world.¹⁴¹

In 2004, EU total honey imports are 202,851 tons and price is \$564,336,000. In 2005, there were not any inputs yet so with estimation according to year 2005, organic honey trade of EU versus total honey imports are 2.46%, price estimated is \$13,882,000. In 2005, 4.9% and the value increased two times.

Our country, in 2004, exported to Germany 32,470 kg of organic honey with a value of \$95,667 and in 2005, exported 20,100 kg priced \$45,497. Organic foods market share is increasing with acceleration each year.

¹³⁷ http://europa.eu/eur-lex/en/com/pdf/2004/com2004_0030en01.pdf

¹³⁸ http://www.unep-unctad.org/CBTF/events/arusha/Draft%20ITC%20UNCTAD%20demand%20study%20_25%20FEB%2006.pdf

¹³⁹ FAO

¹⁴⁰ <http://www.organicconsumers.org/ofgu/Subsidies021206.cfm>

¹⁴¹ EPOPA

4.8. Successful countries in Organic Beekeeping and Applications

We must separate success considering developments in the field of marketing and production. In marketing field, Germany imports honey and sales to the union countries, in the production field, it supports regional development by doing studies of Ardahan Agricultural city directorate for karkas race bee genes center who is suitable for organic beekeeping and doing organic beekeeping transition activities. In America, increase in the efficiency of agriculture is at high levels due to pollination and that is why America gives payment to the beekeepers.

4.9. Price Determination of Organic Products and Effective Countries

As a rule, price is inversely proportional to production. Excess of products will increase supplies in the market and eventually will cause the prices to decrease. Yearly crop fertility is the major factor in the formation of honey price. Besides, in the member countries, honey price paid to the producer is different. This difference comes from the lack of a common pricing policy and variations in marketing. Directly sold honey from producer to consumer generally find buyers with higher prices. In Germany and Austria, conventional honey sold by direct sale are the most expensive with 8 euros/kg. In other member countries, prices vary between 3.5 and 5 Euros. Packaging center prices is lower where professional sales rates are higher. Selling prices are: Spain 1,58 Euros/kg, France 1,88 Euros/kg , Portugal 1,95 Euros/kg Within EU, average prices are: honey sold from producer to consumer, 5.1 Euros/kg; honey sold from producer to packing organizations, 2.05 Euros/kg.¹⁴² For organic honey, we can find the price per kg. by adding 30-40% to these prices depending on the region. Imported honey prices in EU are determined by the kind of honey, target market and economical state of importer country. China, Argentine and Mexico supply 70% of EU honey. There is strong competition between imported honey and honey produced within EU.

EU does not demand customs tax of 17.3% from poorly developed countries taking part in Lome convention. Besides, in scope of mutual quota agreements between Mexico and EU, 30.000 tons of honey is imported with a customs tax discounted by 50%. Member

¹⁴² http://europa.eu/eur-lex/en/com/rpt/2001/com2001_0070en01.pdf

countries specified honey production costs as constant and variable costs, constant costs are labour, shipping equipment, buildings, depreciation, assurance and taxes, variable costs are: winter nutrition, fight with diseases, treatment, packing, land and mobile beekeeping. According to the information provided, honey production costs in terms of Countries are as follows:

With high cost: 112-142 Euros/per hive, Germany, Spain, England, Netherlands

With average cost: 56-91 Euros/per hive, Austria, Denmark, Belgium, Luxembourg, Portugal

With low cost: 20-41 Euros/per hive, France, Italy According to these informations, although it is difficult to calculate cost, in Greece, Spain and France, owners of the 56% of total hives in EU, production cost per hive is 36.5 Euros.¹⁴³

¹⁴³ http://europa.eu/eur-lex/en/com/rpt/2001/com2001_0070en01.pdf

CONCLUSION

Organic agriculture becomes an increasingly important production method in the world. Increasing demand to Organic Products in World marketplaces resulted with the transition to organic products in agricultural enterprises. Countries set specific regulations in the transition to organic production and enforced companies to comply with regulations. Products acquired through organic production are certified and their quality is globally approved. So, companies retain marketing advantage and can sell their products in international market over a decent sales channel. Beekeeping is an agricultural production form based on soil. Organic beekeeping is also agricultural production and the resulting product is certified. Organic production should be certified separately for production, processing and sales. Production organization must cooperate with a company certified for processing and sales for marketing of the product. In our work, organic agriculture, organic beekeeping and organic honey products are examined both in the world and in the EU. In the world market, total agricultural products sales counts and organic products sales counts indicate an increasing tendency of growth. Yearly global agricultural product sales and organic agricultural product sales are comparatively investigated. Ratio of organic honey products over general agricultural products is calculated. Although our country's honey production capacity is sufficient, marketing and production amounts to foreign trade ratio is below average figures.

The reason for this ratio being so low is because produced honey does not have quality assurance certifications. Transition to organic honey production will extend considerable contribution to the development of honey sector in our country. It is observed our country's market share is very low compared to the production level. Predictions are that global organic agricultural market will grow three to four times at least in forthcoming years. This growth is estimated as a slide of consumption from normal agricultural products towards organic products. Accordingly, along with the transition to organic production, an increase of production/foreign sales ratio is expected. Ministry of Agriculture regulations indicate clearly how organic honey production should be performed in our country. Obtained data will contribute overcoming the quality assurance

barrier of organic honey production. Pervasion of Industrial honey utilization will help in the development of the sector.

World economy, to fulfill ever increasing food needs, has changed its basic principle - fertility to quality according to ongoing demands. Consumers prefer organic products. Organic beekeeping contributes in fertility enhancement notably by pollination. European Union regulations Published with number 2092/91 arranged organic agricultural activities and promulgated in 1991. Each country set its own regulations in organic agriculture but exports to European Union must follow these conditions. Organic agriculture is not a method of agriculture without usage of chemicals or fertilizers. Inputs used are made of organic matters so they do not have permanent effect to the environment. As a result of organic agriculture, harmful effects to the environment and livings will be avoided, forthcoming generations will inherit more healthful fields with persistable agriculture. In this system, organic inputs are provided from organic certification owner firms. Therefore, input costs are high. High input costs affect competitiveness in a negative way. Besides, organic beekeeping workforce costs are also high. Because produced goods amount are over inhouse demands, foreign trade is indispensibly important for country economies. When the matter of subject is food, this is even more important, countries imply tight quotas for the non compliant food products and block their market admittance, as a result, whole sector is affected of this.

Therefore, products of good quality come forward and products produced with evident standards are mostly requested. Organic Product concept is based on environment and sustainable agriculture principle along with economical factors. In our country, as a result of pesticides used in conventional agricultural fields, quality of honey products has been badly affected of various chemicals and harmful residues, sector export figures dropped almost to zero point. With the products of quality and certification that will be produced, honey sector will reach a stronger state. Along with certification system comes financial burden for the producer, so they will be more dependent of exporters on food processor companies. In our country, organic agriculture is important for small and medium sized businesses to maintain their existence, and for its place in economy. Results show that trademarked products are popular in the marketplace. Small businesses are not in a position to compensate certification costs. Beekeeping support programs usually cover

general sector. In our work, beekeeping sector is evaluated from economical viewpoint. Because it is interpreted on economical basis, economical data and figures are handled specifically.

Generalizations are used to investigate competitiveness. Economical matters, rather than technical subjects are discussed to end up with a conclusion. Besides, in organic beekeeping, bee strains resistant to diseases should be selected. Because pesticide usage is banned to fight disease, strong bee strain is important in transition to organic beekeeping. In our work, general overview of sector and financial dimensions of the market is represented. We aimed to disclose clear information about honey sector and organic market's dimensions in the total foreign market. EU fulfills a remarkable percentage of his organic honey needs by imports. EU is the largest market in the world. Mostly, middle and high income level consumers buy these products. Organic honey production rates in general honey production, and its sales percentage in our country is below average. Transition to organic beekeeping will especially improve marketing ability of our country's honey sector and convey to a more competitive position in the market with quality products.

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Appendix

Table 01 Bee Colony Presence By Countries In the World

<i>Beehives Stocks (Number)</i>	Year						
	1999	2000	2001	2002	2003	2004	2005
Albania	67,000	76,000	82,000	92,000	111,000	111,000	111,000
Algeria	270,000	270,000	275,000	275,000	275,000	275,000	275,000
Angola	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000
Argentina	2,700,000	2,800,000	2,800,000	2,900,000	2,900,000	2,900,000	2,900,000
Armenia	13,000	10,000	12,000	20,000	20,000	20,000	20,000
Australia	339,000	428,000	380,000	360,000	360,000	360,000	360,000
Austria	330,700	310,000	310,000	345,000	345,000	345,000	345,000
Belarus	200	190	192	196	185	162	180
Belgium	0	29,000	29,000	29,000	29,000	29,000	29,000
Belgium-Luxembourg	29,000	0	0	0	0	0	0
Belize	2,000	2,000	2,000	2,050	2,075	2,100	2,100
Bolivia	0	0	0	0	0	0	0
Bosnia and Herzegovina	72,800	76,800	84,000	82,000	84,000	84,000	84,000
Brazil	824,000	824,000	820,000	825,000	830,000	830,000	830,000
Bulgaria	311,064	334,865	349,452	334,000	310,928	459,178	450,000
Burundi	75,000	60,000	60,000	60,000	60,000	60,000	60,000
Cameroon	310,000	310,000	310,000	311,000	311,000	311,000	311,000
Canada	588,824	599,863	602,328	588,485	563,330	582,346	580,000
Central African Repub.	1,380,000	1,380,000	1,380,000	1,380,000	1,380,000	1,380,000	1,380,000
Chad	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Chile	490,000	495,000	500,000	510,000	520,000	520,000	520,000
China	6,752,550	6,814,970	6,898,410	6,999,630	7,100,720	7,201,500	7,301,500
Colombia	100,000	102,000	105,000	107,000	110,000	113,000	115,000
Cook Islands	20	20	20	20	20	20	20
Costa Rica	38,000	38,000	38,000	38,000	38,000	38,000	38,000
Croatia	87,000	98,000	98,000	107,000	111,000	119,000	120,000
Cuba	143,200	148,000	150,000	150,000	150,000	150,000	150,000
Cyprus	43,800	44,260	46,932	50,000	50,000	50,000	50,000
Czech Republic	564,982	534,814	537,226	517,743	477,743	480,000	480,000
Dominican Republic	91,500	91,500	91,500	91,500	92,000	92,000	92,000
Ecuador	40,000	41,000	42,000	42,500	43,000	44,000	44,000
Egypt	1,550,000	1,570,000	1,570,000	1,590,000	1,590,000	1,590,000	1,590,000

El Salvador	220,000	215,000	215,000	215,000	215,000	215,000	215,000
Estonia	20,500	23,400	37,000	50,000	50,500	34,500	32,700
Ethiopia	3,386,970	3,220,430	3,327,370	4,399,580	4,200,000	4,228,610	4,300,000
Fiji Islands	3,900	4,600	5,300	4,900	4,700	4,700	4,700
Finland	39,000	42,000	44,000	47,000	37,000	45,000	45,000
France	1,153,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000
French Polynesia	1,150	1,230	1,230	1,540	1,920	1,920	1,920
Georgia	94,200	97,600	104,896	140,900	117,900	133,200	152,030
Germany	899,000	902,000	950,000	930,000	930,000	930,000	930,000
Greece	1,283,733	1,289,572	1,293,280	1,300,000	1,300,000	1,300,000	1,300,000
Greenland	0	18	18	11	15	15	15
Guadeloupe	800	800	800	800	800	800	800
Guam	265	265	265	270	270	280	280
Guatemala	50,000	49,000	50,000	52,000	52,000	52,000	52,000
Guinea	50,000	55,700	56,000	60,000	60,000	60,000	60,000
Guinea-Bissau	6,100	6,100	6,100	6,100	6,100	6,100	6,150
Guyana	4,100	4,100	4,100	4,100	4,100	4,100	4,100
Haiti	24,000	25,000	25,000	25,500	26,000	27,000	27,000
Honduras	10,000	10,000	10,600	10,600	10,600	10,600	10,600
Hungary	580,000	590,000	590,000	590,000	590,000	590,000	590,000
Iran, Islamic Rep of	3,300,000	3,300,000	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000
Israel	72,000	72,000	72,000	73,000	73,000	73,000	73,000
Italy	900,000	900,000	900,000	900,000	900,000	900,000	950,000
Jamaica	70,000	70,000	70,000	70,000	70,000	70,000	70,000
Japan	188,561	185,000	183,000	183,000	183,000	183,000	183,000
Jordan	30,000	50,000	50,000	50,000	50,000	50,000	50,000
Kenya	2,480,000	2,490,000	2,490,000	2,490,000	2,490,000	2,490,000	2,490,000
Korea, Republic of	1,080,887	1,240,486	1,530,176	1,772,458	1,871,648	2,012,734	2,100,000
Latvia	0	0	39	48	54	46	48
Lebanon	127,000	132,000	130,000	124,000	123,000	123,000	123,000
Libyan Arab Jamahiriya	36,000	36,500	37,000	37,000	37,000	37,000	37,000
Liechtenstein	900	900	900	900	900	900	900
Lithuania	79,500	73,000	74,800	76,100	80,900	81,100	82,800
Macedonia, The Fmr Yug	74,843	74,972	75,000	75,000	75,000	75,000	75,000
Madagascar	130,000	131,000	131,000	131,000	131,000	131,000	131,000
Mali	17,300	31,600	45,800	23,100	25,000	30,000	30,000
Martinique	0	0	0	0	0	0	0

Mexico	1,800,000	1,945,000	2,000,000	1,800,000	1,800,000	1,800,000	1,800,000
Moldova, Republic of	82,400	76,000	72,100	78,600	75,100	75,000	75,000
Mongolia	1,154	1,530	1,500	1,500	1,500	2,000	2,000
Morocco	570,000	570,000	570,000	570,000	570,000	570,000	570,000
Mozambique	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Myanmar	6,600	6,000	6,000	6,000	6,000	6,000	6,000
Netherlands	0	0	0	0	0	0	0
New Caledonia	2,000	2,000	2,000	2,000	2,000	2,000	2,000
New Zealand	320,695	347,512	339,934	333,248	324,590	324,590	324,590
Nigeria	0	0	0	0	0	0	0
Niue	800	800	800	800	800	800	800
Oman	0	0	0	0	0	0	0
Pakistan	135,000	144,000	144,000	144,000	144,000	125,000	125,000
Palestine, Occupied Tr.	46,195	46,020	46,585	47,900	51,428	52,000	49,000
Paraguay	60,000	60,000	62,000	62,000	63,000	63,000	63,000
Poland	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Portugal	298,000	298,000	300,000	300,000	300,000	300,000	300,000
Puerto Rico	2,960	2,180	2,210	2,920	3,980	4,000	4,000
Romania	620,000	614,000	649,000	745,000	781,000	840,000	840,000
Russian Federation	3,521,000	3,458,000	3,499,000	3,441,000	3,409,000	3,409,000	3,409,000
Rwanda	2,400	10,000	2,400	2,400	2,400	2,400	2,400
Samoa	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Serbia and Montenegro	190,900	192,000	221,000	205,000	245,000	307,000	308,000
Slovakia	279,101	267,361	279,303	262,250	192,002	192,002	192,002
Slovenia	120,000	190,000	210,000	210,000	210,000	210,000	210,000
South Africa	52,000	52,000	52,000	52,000	52,000	52,000	52,000
Spain	2,085,000	2,125,100	2,298,100	2,266,400	2,266,400	2,250,000	2,300,000
Sudan	72,000	72,000	73,000	73,000	73,000	73,000	73,000
Suriname	4,300	4,300	4,300	4,300	4,300	4,300	4,300
Sweden	51,195	52,500	53,000	53,500	54,000	54,000	54,000
Switzerland	246,278	235,801	221,573	211,780	205,608	205,545	206,000
Syrian Arab Republic	360,367	345,091	364,352	384,000	390,000	392,000	393,000
Tajikistan	23,600	29,300	29,100	29,700	33,400	42,800	49,000
Tanzania, United Rep	2,550,000	2,600,000	2,650,000	2,650,000	2,700,000	2,700,000	2,700,000
Timor-Leste	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Tonga	900	900	900	900	900	900	900
Trinidad and Tobago	2,000	2,050	2,100	2,150	2,200	2,250	2,250

Tunisia	134,000	140,000	140,000	140,000	140,000	140,000	140,000
Turkey	4,322,000	4,267,123	4,115,353	4,161,000	4,288,853	5,000,000	5,000,000
Tuvalu	0	0	0	0	0	0	0
Uganda	73,000	75,000	75,000	75,000	75,000	75,000	75,000
Ukraine	2,800	2,800	2,849	2,908	2,811	2,758	2,800
United Kingdom	0	0	0	0	0	0	0
United States of America	2,688,000	2,620,000	2,513,000	2,574,000	2,590,000	2,590,000	2,590,000
Uruguay	600,000	600,000	600,500	600,500	600,000	600,000	600,000
Venezuela,Bolivar Rep	10,000	10,000	10,000	10,500	10,500	10,500	10,500
Viet Nam	170,000	170,000	175,000	175,000	178,000	178,000	178,000
Wallis and Futuna Is	551	551	551	551	551	551	551
Yemen	63,000	64,000	46,000	45,000	45,000	143,500	143,500
Zambia	20,000	20,000	20,000	20,000	20,000	20,000	20,000

Source : Food and Agriculture Organization of the United Nations (FAO)

Table 02 Honey production In World Countries.

<i>Honey Production (Mt)</i>	Year					
	2000	2001	2002	2003	2004	2005
Albania	1,076	1,183	1,232	1,000	1,000	1,000
Algeria	1,054	1,639	1,950	2,051	2,000	2,720
Angola	23,000	23,000	23,000	23,000	23,000	23,000
Argentina	93,000	80,000	83,000	75,000	80,000	80,000
Armenia	650	680	900	1,100	1,000	1,000
Australia	21,381	19,000	18,000	16,000	16,000	16,000
Austria	8,700	8,000	7,700	9,000	10,000	11,000
Azerbaijan, Republic of	550	555	560	550	560	570
Belarus	3,100	3,000	3,100	3,100	3,100	3,000
Belgium	1,460	1,400	1,500	1,600	2,156	2,150
Belgium-Luxembourg	0	0	0	0	0	0
Belize	78	43	47	53	38	38
Bolivia	0	0	0	0	0	0
Bosnia and Herzegovina	876	1,500	1,850	2,000	2,296	2,500
Brazil	21,865	22,220	23,995	30,022	24,500	24,500
Bulgaria	5,337	4,931	5,400	8,500	8,000	6,000
Burundi	200	200	240	240	240	240
Cameroon	2,950	2,950	3,000	3,000	3,000	3,000
Canada	31,857	35,388	37,072	34,602	32,755	33,000

Cayman Islands	9	9	9	9	9	9
Central African Republic	13,000	13,000	13,000	13,000	13,000	13,000
Chad	960	960	960	960	960	960
Chile	7,000	9,000	9,000	15,000	9,000	9,000
China	251,839	254,358	267,830	294,721	304,987	305,000
Colombia	2,050	2,100	2,100	2,500	2,550	2,600
Cook Islands	1	1	1	1	1	1
Costa Rica	1,250	1,260	1,260	1,270	1,270	1,270
Croatia	1,580	2,068	2,060	1,616	2,543	1,800
Cuba	6,900	6,600	5,600	7,173	6,200	6,500
Cyprus	750	950	1,002	1,000	1,000	1,000
Czech Republic	7,553	6,231	5,883	6,303	7,738	7,000
Dominican Republic	1,345	1,391	1,565	3,228	1,950	2,000
Ecuador	785	790	800	850	870	900
Egypt	8,267	8,545	8,710	8,411	7,996	8,000
El Salvador	1,070	1,212	1,660	1,660	2,362	2,362
Estonia	334	291	771	535	555	600
Ethiopia	29,000	29,000	39,600	37,800	38,100	39,000
Fiji Islands	100	118	108	99	100	100
Finland	1,100	1,800	1,700	1,700	1,700	1,700
France	15,691	15,383	16,200	15,000	15,000	15,000
French Polynesia	32	32	40	50	50	50
Gaza Strip (Palestine)	0	0	0	0	0	0
Georgia	1,442	1,745	1,847	2,046	2,253	2,000
Germany	20,409	25,951	14,620	23,691	16,000	17,000
Greece	14,356	17,632	14,935	15,146	15,595	15,000
Guadeloupe	150	150	150	150	150	150
Guam	10	10	12	12	12	12
Guatemala	1,445	1,450	1,500	1,500	1,500	1,500
Guinea	557	600	600	600	600	600
Guinea-Bissau	65	65	65	65	65	65
Guyana	74	74	74	74	74	74
Haiti	810	810	830	850	850	850
Honduras	167	170	120	119	118	117
Hungary	15,165	15,337	15,200	21,000	19,504	20,500
India	52,000	52,000	52,000	52,000	52,000	52,000
Iran, Islamic Rep of	25,260	26,600	28,045	32,000	35,000	36,000

Ireland	240	260	197	197	197	200
Israel	3,052	3,268	3,471	3,100	3,200	3,200
Italy	10,000	10,000	8,000	7,000	8,000	9,000
Jamaica	1,000	1,000	1,000	1,000	1,000	1,000
Japan	3,400	3,300	3,300	3,300	3,300	3,300
Jordan	100	50	100	200	197	200
Kazakhstan	775	1,034	1,028	970	1,068	1,000
Kenya	24,940	24,940	22,000	22,000	21,500	21,500
Korea, Republic of	17,741	22,040	25,500	26,000	28,000	29,000
Kyrgyzstan	1,266	1,372	1,557	1,450	1,327	1,500
Latvia	333	575	760	552	746	800
Lebanon	1,082	832	732	935	950	970
Libyan Arab Jamahiriya	780	800	800	800	800	800
Lithuania	816	1,078	1,256	1,156	1,100	1,000
Macedonia, The Fmr Yug Rp	1,100	980	852	1,026	916	1,000
Madagascar	3,930	3,930	3,930	3,930	3,930	3,930
Mali	316	458	231	250	300	300
Mexico	58,935	59,069	58,890	57,045	56,808	56,808
Moldova, Republic of	2,020	2,185	2,275	2,180	2,200	2,200
Mongolia	14	14	10	10	10	10
Morocco	2,500	2,500	2,500	3,000	3,000	3,000
Mozambique	390	390	390	390	390	390
Myanmar	208	223	237	300	300	300
Netherlands	0	0	0	0	0	0
New Caledonia	60	60	58	55	55	55
New Zealand	9,609	9,144	4,682	12,252	12,000	12,000
Nicaragua	370	380	385	390	390	400
Niue	6	6	6	6	6	6
Norway	1,250	1,000	1,900	1,500	1,300	1,200
Pakistan	1,500	1,500	1,500	1,500	1,500	1,500
Palestine, Occupied Tr.	153	348	368	401	215	250
Papua New Guinea	140	150	150	150	150	160
Paraguay	1,680	1,700	1,700	1,750	1,710	1,720
Peru	700	800	1,000	1,200	1,200	1,200
Poland	8,623	9,528	9,644	11,620	11,957	12,500
Portugal	4,461	4,538	7,861	7,310	6,737	6,700
Puerto Rico	20	20	26	40	40	40

Romania	11,746	12,598	13,434	17,409	19,150	19,200
Russian Federation	53,922	52,659	49,400	48,048	52,782	53,000
Rwanda	80	30	30	30	30	30
Réunion	100	100	100	100	100	100
Samoa	400	400	400	400	400	400
Saudi Arabia	165	160	174	163	153	174
Senegal	500	500	500	500	550	550
Serbia and Montenegro	3,023	2,667	2,924	3,627	3,972	4,000
Sierra Leone	480	480	500	500	500	500
Slovakia	3,493	3,253	3,091	2,650	2,500	2,600
Slovenia	2,300	2,550	2,450	1,850	2,350	2,500
South Africa	900	900	900	900	900	1,500
Spain	28,860	31,617	35,722	35,279	36,695	37,000
Sudan	700	710	710	710	710	710
Suriname	86	86	86	86	86	86
Sweden	2,600	3,000	3,300	3,400	3,400	3,400
Switzerland	2,830	4,288	2,692	4,157	4,074	4,200
Syrian Arab Republic	1,677	1,778	1,880	1,900	1,920	1,940
Tajikistan	172	129	245	800	1,000	1,000
Tanzania, United Rep of	26,000	26,500	26,500	27,000	27,000	27,000
Thailand	3,500	3,500	3,700	3,700	3,800	3,500
Timor-Leste	400	400	400	400	400	400
Tonga	12	12	12	12	12	12
Trinidad and Tobago	40	40	42	43	44	44
Tunisia	2,500	2,500	2,500	2,500	2,500	2,500
Turkey	61,091	60,190	74,555	69,540	73,929	73,929
Turkmenistan	8,000	8,000	8,000	8,000	8,000	8,000
Tuvalu	2	2	3	3	3	3
Uganda	300	300	300	300	300	300
Ukraine	52,439	60,043	51,144	53,550	57,878	60,502
United Kingdom	2,870	3,000	5,000	7,000	7,000	7,000
United States of America	99,945	84,335	77,890	82,144	82,000	82,000
Uruguay	5,000	10,000	10,154	9,958	13,200	13,200
Uzbekistan	2,300	2,400	2,513	2,301	2,250	2,500
Venezuela,Bolivar Rep of	403	253	151	100	90	90
Viet Nam	5,661	7,321	11,401	12,758	10,701	11,000
Wallis and Futuna Is	11	11	11	11	11	11

Yemen	963	683	679	681	681	681
Zambia	200	200	200	200	200	200

Source: Food and Agriculture Organization of the United Nations (FAO)

Food Distributors:

[ALFRED L. WOLFF HONEY GmbH](#) , Germany

[Bahnsen & Prigge](#) , Germany

[B&K Agrarmarketing](#) GmbH, Germany

[Boesch Boden Spies GmbH & Co. KG](#) , Germany

Albert Claussen Honigversand,

[Adolf Darbo AG](#) , Austria

[DE-VAU-GE Gesundheitswerk](#) GmbH, Germany

[Dreyer-Bienenhonig GmbH](#) , Germany

Fürsten-Reform Dr. med. Hans Plümer Nachf. GmbH & Co. KG,

GREENLAND Importagentur,

Heinz Gruber ,

Lagereigesellschaft N. H. L. Hinsch & Cons. mbH ,

Honigmayr Handelsgesellschaft m.b.H.,

[INTER-NATURALES](#) Handelsagentur G. Edler, AlmanyGermany

[Walter Lang Honigimport](#) GmbH, Germany

Metro Group Buying GmbH,

Rapunzel Naturkost AG,

[J. G. Schütte Honig](#) GmbH, Germany

[Tuchel & Sohn](#) GmbH, Germany

[Honig-Wernet](#) GmbH, Germany

[Wydra International](#) GmbH, Import,Export Germany

[Zwecker](#) & Co. GmbH, Germany

Kaynak http://www.warenverein.de/wvhh/treen.afp?!_1TI0KCLJI&cmd=LIS:Honig&hd=Honey

Major Retail Companies in Food Sector

Table 03

	Group/Company	2002		2003
		Sales (Million Euro)	Domestic sales in (%)	Revenue (Million Euro)
1	Edeka/AVA Group	20.929	15,4	24.406
2	Aldi Group	20.250	14,9	19.200
3	Rewe Group	19.645	14,4	21.164
4	Metro Group	14.430	10,6	14.305
5	Schwarz Group	13.797	10,1	17.245
6	Tengelmann Group	7.762	5,7	7.873
7	SPAR AG	6.956	5,1	8.370
8	Lekkerland-Tobaccoland	6.945	5,1	6.584
9	Schlecker	5.035	3,7	5.320
10	Dohle Group	2.408	1,8	2.376
11	Norma	2.045	1,5	
12	Globus	1.892	1,4	
13	Bartels-Langness	1.718	1,3	
14	dm-Drogeriemarkt	1.670	1,2	
15	Wal-Mart	1.438	1,1	
16	Coop Schleswig-Holstein	1.137	0,8	
17	Karstadt	938	0,7	
18	Rossmann	920	0,7	
19	Bünting	855	0,6	
20	Bremke & Hoerster	844	0,6	
21	Tegut	760	0,6	
22	Ihr Platz	741	0,5	
23	Klaas + Kock (K+K)	705	0,5	
24	Müller	605	0,4	
25	Ratio	549	0,4	
26	Kaes	300	0,2	
27	Feneberg	278	0,2	
28	Distributa	257	0,2	
29	Woolworth	227	0,2	
30	Kloppenburg	113	0,1	
	Toplam	136.149	100,0	

<http://www.dtm.gov.tr/dtm/upload/D/AlmPera.doc>

Source: Lebensmittel Zeitung, www.LebensmittelZeitung.de, 18/03/2005

Total Sales Figures of Chain Stores in the World

Table 04 Top 30 Retailers World 2005

POS.		Country of origin	Sales 2005 incl. VAT in bln USD	Net Sales 2005 in bln USD	Foreign sales in %
1	Wal-Mart Stores Inc.	USA	338.745	312.427	22,4
2	Carrefour S.A.	France	117.173	92.597	52.4
3	Metro Group	Germany	83.237	69.260	51.7
4	Tesco Plc	UK	77.172	69.631	23,1
5	Ahold N.V.	Netherlands	76.774	55.307	82,0
6	Seven & I Holdings Co Ltd (1)(2)	Japan	69.237	35.324	34,0
7	The Kroger Co.	USA	63.702	60.553	0,0
8	Sears Holdings Corporation (3)	Sears	61.953	49.124	11,9
9	Rewe Zentral AG	Germany	56.528	51.832	30,5
10	Costco Wholesale Corp.	USA	56.456	52.935	20,5
11	Target Corp (1)	USA	55.356	52.620	0,0
12	Casino S.A.	France	53.842	28.347	41,8
13	Aeon Co Ltd (1)	Japan	51.432	40.230	8,2
14	Groupe Auchan	France	51.273	38.216*	47,0
15	Edeka Group	Germany	50.119	41.266*	6,7
16	Schwarz Group	Germany	49.729	45.802*	43,3

17	Aldi Group	Germany	48.772	45.008*	44.7
18	Walgreen Co	USA	44.194	42.202*	1,3
19	Albertson's Inc	USA	42.457	40.358*	0,0
20	Safeway Inc	USA	42.078	38.416*	16,1
21	E. Leclerc	France	39.539	35.424*	5,6
22	CVS Corporation	USA	38.930	37.006*	0,0
23	ITM Entreprises S.A. (Intermarché)	France	36.556	33.724*	10,0
24	Tengelmann Group	Germany	32.825	29.986	50,8
25	Woolworths Ltd	Australia	31.086	27.090*	8,7
26	J. Sainsbury Plc.	UK	30.606	30.178*	0,0
27	Coles Myer Ltd.	Australia	30.150	27.853	0,6
28	Loblaw Companies Ltd	Canada	24.994	22.943	0,0
29	Delhaize Group	Belgium	24.836	18.600	77,1
30	WM Morrisons Supermarkets Plc	UK	24.116	22.025	0,0

Source: Planet Retail May 2006 *estimated

Major Importers, Traders, Processors in Germany:¹⁴⁴

Table 05

Lehmann Natur GmbH

Am Churkamp 20

D - 47059 Duisburg

Tel.: +49 - 203 - 932 550

Fax: +49 - 203 - 932 5599

Lehmann-Natur@t-online.de

www.lehmann-natur.com

(importer, distributor for
supermarkets)

Biotropic (see Lehmann Natur)

(importer for natural food stores)

Ernst Weber Naturkost

Postfach 75 09 54

¹⁴⁴ http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/004/Y1669E/y1669e09.htm

D - 81339 München
Tel.: +49 - 89 - 746 3420
Fax: +49 - 89 - 746 34222
weberNK@t-online.de
(importer and wholesaler)

Naturkost Schramm
Ludwig-Winter-Strasse 6
D - 77767 Appenweier
Tel.: +49 - 7805 - 96680
Fax: +49 - 7805 - 966880
team@naturkost-schramm.de
www.naturkost-schramm.de
(importer and wholesaler)

**Landlinie Lebensmittel
Vertrieb GmbH & Co. KG**
An der Hasenkaule 24
D - 50345 Hürth
Tel.: +49 - 2233 - 974510
Fax: +49 - 2233 - 9745199
i.abeln@landlinie.de
www.landlinie.de
(importer and wholesaler)

Terra Frischdienst
Gross-Berliner-Damm 83
D - 12487 Berlin-Johannisthal
Tel.: +49 - 30 - 631 05 16
Fax: +49 - 30 - 631 69 75
(toptancı)

Handelskontor Willmann GmbH
Tafingerstr. 8
D - 71665 Vaihingen
Tel.: +49 - 7042 - 9570
Fax: +49 - 7042 - 957129
(wholesaler)

Dennree Versorgungs GmbH
Hofer Str.11
D - 95183 Töpen
Tel.: +49 - 9295 - 180
Fax: +49 - 9295 - 1850

zentrale@dennree.de
(distributor and supermarket chain)

Rewe AG
Domstr. 20
D - 50668 Köln
Tel.: +49 - 221 - 1490
Fax: +49 - 221 - 149 9000
(distributor and supermarket chain)

Bios
Gabriele Rempe GmbH
Grossmarkt-Frischezentrum
D - 59010 Hamm
Tel.: +49 - 2381 - 543250
Fax: +49 - 2381 - 5432540
www.bios-hamm.de
(processor of fruits and
vegetables for catering
companies)

Bio-Betrieb Käpplein GmbH
Am Fernmeldeturm 6
D - 68753 Waghäusel
Tel.: +49 - 7254 - 60975
Fax: +49 - 7254 - 950228
(processor of fruits and
vegetables for catering
companies)

**Beutelsbacher
Fruchtsaftkellerei GmbH**
Birkelstr. 11
D - 71384 Weinstadt-Endersbach
Tel.: +49 - 7151 - 995150
Fax: +49 - 7151 - 9951555
info@beutelsbacher.de
www.beutelsbacher.de
(producer of juices)

Voelkel KG
Pevestorf 23
D - 29478 Hühbeck

Tel.: +49 - 5846 - 9500
Fax: +49 - 5846 - 95050
(producer of juices)

Hipp-Werk

Münchner Str. 58
D - 85276 Pfaffenhofen a.d.Ilm
Tel.: +49 - 8441 - 757 481
Fax: +49 - 8441 - 757 492
(producer of baby foods)

Grüner Punkt Naturkost GmbH

Schwanenkirchner Str. 28
D - 94491 Hengersberg
Tel.: +49 - 9901 - 1842
Fax: +49 - 9901 - 1875
streit@bayernwald.com
(distributor of fruit pulps and aromes)

Organic food Distribution Channels in Germany:

Importer, Packaging and Distributors:

Care Naturkost GmbH & Co KG www.care-natur.de

Davert GmbH www.dacert-muehle.de

Dennree Versorgungs www.dennree.de

Gepa www.gepa3.de (fuar organizasyon)

Rapunzel Naturkost AG www.rapunzel.com

Ulrich Walter GmbH/lebensbaum www.lebensbaum.de

Worlee Naturprodukte GmbH www.worlee.de

Retail Market:

Naturkostladen ve Reformhouse

Alnatura has 22 organic stores. Annual sales 135 million Euro in 2005

Euro www.alnatura.de

Basic AG sells organic food with its 12 store. Its sales is 36 million Euro in 2004

milyon Euro www.basig-ag.de¹⁴⁵

Chain Store,

REWE www.rewe.de

EDEKA www.edeka.de

TENGELMANN AG www.Tengelmann.de

METRO www.metro.de

ALDI www.aldi.de

REGULATIONS AND DIRECTIVES ON HONEY IN EU.

COUNCIL DIRECTIVE of 22 July 1974 on the harmonization of the laws of the **Member States relating to honey (74/409/EEC)**

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Articles 43 and 100 thereof;

Having regard to the proposal from the Commission;

Having regard to the Opinion of the European Parliament;

Whereas the laws, regulations and administrative provisions of the Member States define the term "honey", specify the different varieties and lay down the requirements to be met by the product and the information which must appear on the packages or labels;

Whereas the differences existing between these laws hinder the free movement of this product and may create unfair conditions of competition;

Whereas, therefore, it is necessary at Community level to define the term "honey", to make provision for the different varieties which may be marketed under appropriate names to fix the general specific criteria for its composition, and to lay down the main information which is to appear on labels;

Whereas the choice of the methods of sampling and analysis necessary for checking the composition and characteristics of honey is an implementing measure of a technical nature ; whereas their adoption should be entrusted to the Commission in order to simplify and expedite the procedure;

Whereas in all cases in which the Council confers on the Commission authority to implement rules relating to foodstuffs, a procedure should be laid down establishing close cooperation between the Member States and the Commission within the Standing Committee on Foodstuffs set up by Council Decision No 69/414/EEC (1);

Whereas Article 3 of this Directive prohibits the use of the term "honey" for products which do not comply with the definition laid down in Article 1 (1) ; whereas, however, the immediate implementation of this ban could cause disturbance of the market where the use of the terms "Kunsthonig" or "Kunsthonning" is permitted by previous national legislation to describe a product other than honey ; whereas provision should

¹⁴⁵ <http://www.unep-unctad.org>

consequently be made for an appropriate transitional period to allow the necessary changes to be made;

Whereas pending the adoption of general Community rules regarding the labelling of foodstuffs, a number of national provisions should be maintained on a transitional basis;

Whereas there are at present on the market in certain Member States honeys with various analytical characteristics ; whereas it would appear difficult to apply to them all the criteria laid down in the Annex to this Directive ; whereas, however, a more detailed study would make it possible to review the situation at a later date,

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. For the purposes of this Directive "honey" shall mean the foodstuff which is produced by the honey-bee from the nectar of blossoms or secretions of or on living parts of plants, and which the bees collect, transform, combine with specific substances of their own and store and leave to mature in honey combs. This foodstuff may be fluid, viscous or crystallized.

2. The main types of honey are as follows: (a) according to origin

blossom honey:

honey obtained predominantly from the nectar of blossoms; (1)OJ No L 291, 19.11.1969, p. 9.

honeydew honey:

honey obtained predominantly from secretions of or on living parts of plants ; its colour varies from light or greenish brown to almost black;

(b) according to mode of presentation

comb honey:

honey stored by bees in the cells of freshly built broodless combs and sold in sealed whole combs or sections of such combs;

chunk honey:

honey which contains one or more pieces of comb honey;

drained honey:

honey obtained by draining decapped broodless combs;

extracted honey:

honey obtained by centrifuging decapped broodless combs;

pressed honey:

honey obtained by pressing broodless combs with or without the application of moderate heat;

Article 2

Member States shall take all measures necessary to ensure that honey may be offered for sale only if it conforms to the definitions and rules laid down in this Directive and in the Annex thereto.

Article 3

1. The term "honey" shall be applied only to the product defined in Article 1 (1) and must be used in trade to designate that product, without prejudice to the provisions laid down in Article 7 (1) (a) and (2).

2. The names referred to in Article 1 (2) shall be applied only to the products defined there in.

Article 4

By way of derogation from Article 3 (1) the terms "Kunsthonning" and "Kunsthonig" may continue to be used in Denmark and in Germany respectively for a period of five years starting from the date of notification of this Directive, to describe a product other than honey, in accordance with the national provisions governing this product in force at the time of the notification of this Directive.

Article 5

No product other than honey may be added to honey offered for sale as such.

Article 6

1. When it is marketed the honey shall comply with the compositional criteria listed in the Annex.

However, by way of derogation from the second indent of paragraph 2 of the said Annex, Member States may authorize in their own territory: (a) the marketing of heather honey with a maximum moisture content of 25 %, if this is the result of natural conditions of production,

(b) the marketing of "baker's honey" in "industrial honey" with a moisture content of not more than 25 %, if this is the result of natural conditions of production.

2. In addition: (a) honey shall, as far as practicable, be free from organic or inorganic matters foreign to its composition, such as mould, insects, insect debris, brood or grains of sand, when the honey is marketed as such or is used in any product for human consumption;

(b) honey shall not: (i) have any foreign tastes or odours;

(ii) have begun to ferment or effervesce;

(iii) have been heated to such an extent that its natural enzymes are destroyed or made inactive;

(iv) have an artificially changed acidity;

(c) honey may under no circumstances contain substances in such quantity as to endanger human health.

3. By way of derogation from paragraphs 1 and 2, honey may be marketed as "baker's honey" or "industrial honey" if, although suitable for human consumption: (a) it does not comply with the requirements referred to in paragraph 2 (b), (i), (ii), (iii), or

(b) its diastase activity or hydroxymethylfurfural content do not comply with the specifications laid down in the Annex.

However, in the case referred to under (b) a Member State may refrain from making use of this term compulsory and allow the term "honey" to be used. Within five years from the date of notification of this Directive the Council shall decide, on a proposal from the Commission, on provisions designed to lay down identical technical specifications for the entire Community.

Article 7

1. The only information which is compulsory on the packages, containers or labels of honey, which information must be conspicuous, clearly legible and indelible, shall be the following: (a) the term "honey" or one of the names listed in Article 1 (2) ; "comb honey" and "chunk honey" must, however, be described as such ; in the cases referred to in subparagraph (b) of the second paragraph of Article 6 (1) and in the first paragraph of Article 6 (3), the name of the product shall be "baker's honey" or "industrial honey";

(b) the net weight expressed in grammes or kilogrammes;

(c) the name or trade name and the address or registered office of the producer or packer, or of a seller established within the Community.

2. The Member States may require in their own territory use of the name "honeydew honey" for honey which is predominantly honeydew honey, which has the organoleptic, physico-chemical and microscopic characteristics of such honey and for which there is given no indication of a specific plant origin, such as "pine honey".

3. By way of derogation from paragraph 1, the Member States may retain any national provisions which require indication of the country of origin. This information, however, may no longer be required for honey originating in the Community.

4. The term "honey" referred to in paragraph 1 (a) or one of the names referred to in Article 1 (2) may be supplemented inter alia by: (a) a reference to the origin, whether blossom or plant, provided the product comes predominantly from the source indicated and has the appropriate organoleptic, physico-chemical, and microscopic characteristics; (b) a regional, territorial or topographical name, provided the product originates entirely in the area indicated.

5. Where honey is put up in packages or containers of a net weight equal to or exceeding 10 kilogrammes and is not retailed, the information referred to in paragraph 1 (b) and (c) may, if desired, appear only on the accompanying documents.

6. Member States shall refrain from stating, apart from what is laid down in paragraph 1, how the information referred to in that paragraph is to be given. However, Member States may forbid trade in honey in their territory if the markings laid down in paragraph 1 (a) are not shown on one side of the package or container in the national language or languages.

7. Until the end of the transitional period during which the imperial units of measurement contained in Annex II to Council Directive No 71/354/EEC (1) of 18 October 1971 relating to units of measurement which may be used in the Community, Member States may require that the weight should also be expressed in imperial units of measurement.

8. Paragraphs 1 to 7 shall apply without prejudice to subsequent provisions laid down by the Community on labelling.

Article 8

1. Member States shall adopt all the measures necessary to ensure that trade in the products referred to in Article 1, which comply with the definitions and rules laid down in this Directive and in Annex I thereto, shall not be impeded by the application of national non-harmonized provisions governing the composition, manufacturing specifications, packaging or labelling of these products in particular or of foodstuffs in general.

2. Paragraph 1 shall not be applicable to non-harmonized provisions justified on grounds of: (1) OJ No L 243, 29.10.1971, p. 29. - protection of public health,
- repression of frauds unless such provisions are liable to impede the application of the definitions and rules laid down by this Directive,
- protection of industrial and commercial property, of indications of source, designations of origin and the repression of unfair competition.

Article 9

The methods of sampling and analysis necessary for checking the composition and characteristics of honey shall be determined in accordance with the procedure laid down in Article 10.

Article 10

1. Where the procedure laid down in this Article is to be followed, the matter shall be referred to the Standing Committee on Foodstuffs set up by the Council Decision of 13 November 1969 (hereinafter called the "Committee") by its Chairman, either on his own initiative or at the request of a representative of a Member State.

2. The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Committee shall give its Opinion on that draft within a time limit set by the Chairman having regard to the urgency of the matter. Opinions shall be delivered by a majority of 41 votes, the votes of the Member States being weighted as provided in Article 148 (2) of the Treaty. The Chairman shall not vote.

3. (a) Where the measures envisaged are in accordance with the Opinion of the Committee, the Commission shall adopt them.

(b) Where the measures envisaged are not in accordance with the Opinion of the Committee or if no opinion is delivered, the Commission shall without delay submit to the Council a proposal on the measures to be taken. The Council shall act by a qualified majority.

(c) If within three months of the proposal being submitted to it, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 11

The provisions of Article 10 shall apply for 18 months from the date on which the matter was first referred to the Committee, under Article 10 (1).

Article 12

This Directive shall not affect national provisions relating to the scales of weights according to which honey must be marketed ; the Council, on a proposal from the Commission, shall adopt the appropriate Community provisions before 1 January 1979.

Article 13

This Directive shall not apply to products intended for export from the Community.

Article 14

Member States shall, if necessary, within a period of one year following notification of this Directive, amend their laws in accordance with the provisions of this Directive and shall forthwith inform the Commission thereof. The laws thus amended shall apply to the products offered for sale in the Member States two years after the notification of this Directive.

Article 15

This Directive is addressed to the Member States.

Done at Brussels, 22 July 1974

For the Council

The President

J. SAUVAGNARGUES

ANNEX COMPOSITIONAL CRITERIA FOR HONEY

COUNCIL REGULATION (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey
THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty establishing the European Community, and in particular Articles 42 and 43 thereof,

Having regard to the proposal from the Commission (1),
Having regard to the opinion of the European Parliament (2),
Having regard to the opinion of the Economic and Social Committee (3),
Whereas the Commission has sent to the European Parliament and the Council a discussion paper on European beekeeping in which the situation and the difficulties of this sector have been explained;
Whereas beekeeping is a sector of agriculture, the main functions of which are economic activity and rural development, the production of honey and other products of the hive and the maintenance of ecological balance;
Whereas the sector is marked by diversity of production conditions and yields and by the dispersion and variety of producers and traders; whereas there is an imbalance between supply and demand on the Community market for honey;
Whereas, in view of the spread of varroasis in several Member States in recent years and the problems which this disease and associated diseases cause for honey production, action by the Community is necessary;
Whereas, given these circumstances and in order to improve the production and marketing of honey in the Community, national programmes should be established without delay for each year comprising technical assistance, measures to control varroasis and related diseases, a rationalization of transhumance, the management of regional beekeeping centres and cooperation on research programmes to improve the quality of honey;
Whereas, in order to supplement the statistical data on the agricultural sector, Member States should carry out studies on the structure of the sector, covering production, marketing and price formation;
Whereas expenditure by the Member States in fulfilment of the obligations arising from this Regulation should be borne by the Community pursuant to Article 3 of Council Regulation (EEC) No 729/70 of 21 April 1970 on the financing of the common agricultural policy (4);
Whereas the European Parliament, the Council and the Commission made a Declaration on 6 March 1995 on the incorporation of financial provisions into legislative acts (5),
HAS ADOPTED THIS REGULATION:

Article 1

1. This Regulation lays down measures for improving general conditions for the production and marketing of honey which complies with the definition given in Council Directive 74/409/EEC of 22 July 1974 on the harmonization of the laws of the Member States relating to honey (6). To this end, Member States may lay down national programmes for each year.

2. The measures which may be included in these programmes shall be the following:

- (a) technical assistance to members of beekeepers' associations and honey houses with a view to improving the conditions for the production and extraction of honey;
- (b) the control of varroasis and related diseases; improvement of the conditions for the treatment of hives;
- (c) rationalization of transhumance;
- (d) measures to support laboratories carrying out analyses on the physico-chemical properties of honey;

(e) cooperation with specialized bodies for the implementation of applied research programmes to improve the quality of honey.

3. The provisions of Article 4 of Regulation No 26 applying certain rules of competition to production of and trade in agricultural products (7) shall remain applicable to State aids other than those included in the programmes approved pursuant to Article 4 of this Regulation.

Article 2

In order to be eligible for the part-financing provided for in Article 3, Member States shall carry out a study of the production and marketing structure in the beekeeping sector in their territory by 15 December 1997.

Article 3

Expenditure made in accordance with this Regulation shall be considered as expenditure within the meaning of Article 3 of Regulation (EEC) No 729/70.

The Community shall provide part-financing for the national programmes equivalent to 50 % of the expenditure borne by Member States for the measures referred to in Article 1 (2) included in the national programme.

In order to be eligible for Community part-financing, expenditure by the Member States for the measures taken under the annual national programmes referred to in Article 1 must be made by 15 October each year.

Article 4

The programmes referred to in Article 1 (1) shall be drawn up in close collaboration with the representative organizations and beekeeping cooperatives. Programmes shall be forwarded to the Commission, which shall approve them in accordance with the procedure laid down in Article 17 of Council Regulation (EEC) No 2771/75 of 29 October 1975 on the common organization of the market in eggs (8).

Measures contained in operational programmes for Objective 1, 5 (b) and 6 regions shall be excluded from these programmes.

Article 5

Detailed rules for the application of this Regulation, in particular those relating to monitoring, shall be adopted in accordance with the procedure laid down in Article 17 of Regulation (EEC) No 2771/75.

Article 6

The Commission shall present to the European Parliament and the Council every three years a report on the application of this Regulation, initially by 31 December 2000.

Article 7

This Regulation shall enter into force on the third day following that of its publication in the Official Journal of the European Communities.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Luxembourg, 25 June 1997.

For the Council

The President

J. VAN AARTSEN

(1) OJ No C 378, 13. 12. 1996, p. 20.

(2) OJ No C 200, 30. 6. 1997.

(3) OJ No C 133, 28. 4. 1997.

- (4) OJ No L 94, 28. 4. 1970, p. 13. Regulation as last amended by Regulation (EC) No 1287/95 (OJ No L 125, 8. 6. 1995, p. 1).
- (5) OJ No C 102, 4. 4. 1996, p. 4.
- (6) OJ No L 221, 12. 8. 1974, p. 10. Directive as amended by the 1985 Act of Accession.
- (7) OJ No 30, 20. 4. 1962. p. 993/62. Regulation as amended by Regulation No 49 (OJ No 53, 1. 7. 1962, p. 1571/62).
- (8) OJ No L 282, 1. 11. 1975, p. 49. Regulation as last amended by Regulation (EC) No 1516/96 (OJ No L 189, 30. 7. 1996, p. 99).

COUNCIL REGULATION (EC) No 2070/98 of 28 September 1998 amending Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 43 thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas Regulation (EC) No 1221/97 (4) establishes the time limit in which expenditure on the measures taken under the annual national programme must be made;

Whereas, in order to avoid reducing the duration of the national programmes in the first year, the time limit for making such expenditure under those first programmes should be postponed,

HAS ADOPTED THIS REGULATION:

Article 1

In Article 3 of Regulation (EC) No 1221/97, the third subparagraph shall be replaced by the following:

'Expenditure by the Member States for the measures taken under the annual national programmes referred to in Article 1 must be made by 15 October each year. However, for the first year, that date shall be postponed to 31 January 1999.'

Article 2

This Regulation shall enter into force on the day of its publication in the Official Journal of the European Communities.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 28 September 1998.

For the Council

The President

W. MOLTERER

(1) OJ C 222, 16. 7. 1998, p. 15.

(2) Opinion delivered on 16 September 1998 (not yet published in the Official Journal).

(3) Opinion delivered on 9 September 1998 (not yet published in the Official Journal).

(4) OJ L 173, 1. 7. 1997, p. 1.

COMMISSION REGULATION (EC) No 2633/98 of 8 December 1998 amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey (1), as amended by Regulation (EC) No 2070/98 (2), and in particular Article 5 thereof,

Whereas Commission Regulation (EC) No 2300/97 (3), as last amended by Regulation (EC) No 1472/98 (4), lays down provisions for the implementation of measures to improve the production and the marketing of honey;

Whereas consistency between measures of national programmes and other measures under the various Community policies, in particular Regulations on the coordination of agro-food research policies must be ensured during the implementation of national programmes; whereas, in particular, any over-compensation owing to the combination of aid and any other inconsistency in the definition of measures must be avoided;

Whereas the measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Article 4(3) of Regulation (EC) No 2300/97 is replaced by the following:

'3. The same measure may not be the subject of payments simultaneously under Regulation (EC) No 1221/97 and under another Community aid scheme in respect of Council Regulations (EC) No 950/97 (*), (EC) No 951/97 (**) and (EC) No 952/97 (***) as well as Community programmes of research, technological development and demonstration provided for in Article 2(3) of this Regulation.

(*) OJ L 142, 2.6.1997, p. 1.

(**) OJ L 142, 2.6.1997, p. 22.

(***) OJ L 142, 2.6.1997, p. 30.'

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 8 December 1998.

For the Commission

Franz FISCHLER

Member of the Commission

(1) OJ L 173, 1. 7. 1997, p. 1.

(2) OJ L 265, 30. 9. 1998, p. 1.

(3) OJ L 319, 21. 11. 1997, p. 4.

(4) OJ L 194, 10. 7. 1998, p. 8.

COMMISSION REGULATION (EC) No 1479/1999 of 6 July 1999

amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/1997 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey(1), as amended by Regulation (EC) No 2070/98(2), and in particular Article 5 thereof,

(1) Whereas Commission Regulation (EC) No 2300/97(3), as last amended by Regulation (EC) No 2767/98(4), lays down provisions for the implementation of measures to improve the production and marketing of honey;

(2) Whereas there have been changes to the number of hives in the Member States' communications to update the structural data on the situation in the sector as provided for in Article 1(a) of Regulation (EC) No 2300/97; whereas, as a result, Annex I to that Regulation should be amended;

(3) Whereas Article 2(2) of Regulation (EC) No 2300/97 lays down a final date for implementation of measures under annual programmes; whereas, as a result, the new Annex I is to apply for the first time to the annual programmes covering the 1999/2000 marketing year;

(4) Whereas the measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Annex I to Regulation (EC) No 2300/97 is replaced by the Annex hereto.

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

It shall apply for the first time to the annual programmes covering the 1999/2000 marketing year.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 6 July 1999.

For the Commission

Franz FISCHLER

Member of the Commission

(1) OJ L 173, 1.7.1997, p. 1.

(2) OJ L 265, 30.9.1998, p. 1.

(3) OJ L 319, 21.11.1997, p. 4.

(4) OJ L 346, 22.12.1998, p. 13.

Commission Regulation (EC) No 1438/2000 of 30 June 2000

amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey(1), as amended by Regulation (EC) No 2070/98(2), and in particular Article 5 thereof,

Whereas:

(1) Commission Regulation (EC) No 2300/97(3), as last amended by Regulation (EC) No 1479/1999(4), lays down provisions for the implementation of measures to improve the production and marketing of honey.

(2) There have been changes to the number of hives in the Member States' communications to update the structural data on the situation in the sector as provided for in Article 1(a) of Regulation (EC) No 2300/97. As a result, Annex I to that Regulation should be amended.

(3) Article 2(2) of Regulation (EC) No 2300/97 lays down a final date for implementation of measures under annual programmes. As a result, the new Annex I is to apply for the first time to the annual programmes covering the 2000/2001 marketing year.

(4) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Annex I to Regulation (EC) No 2300/97 is replaced by the Annex hereto.

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

It shall apply for the first time to the annual programmes covering the 2000/2001 marketing year.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 30 June 2000.

For the Commission

Franz Fischler

Member of the Commission

(1) OJ L 173, 1.7.1997, p. 1.

(2) OJ L 265, 30.9.1998, p. 1.

(3) OJ L 319, 21.11.1997, p. 4.

(4) OJ L 171, 7.7.1999, p. 9.

Commission Regulation (EC) No 704/2001 of 6 April 2001

amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,
Having regard to the Treaty establishing the European Community,
Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey(1), as amended by Regulation (EC) No 2070/98(2), and in particular Article 5 thereof,

Whereas:

(1) Commission Regulation (EC) No 2300/97(3), as last amended by Regulation (EC) No 1438/2000(4), lays down provisions for the implementation of measures to improve the production and the marketing of honey.

(2) The conclusions of the Commission report to the Council and the European Parliament on the implementation of Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey(5) provides for the introduction of simplified administration to permit Member States each year simply to present any amendments or adjustments to programmes presented the previous year.

(3) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Article 2(1) of Regulation (EC) No 2300/97 is replaced by the following: "1. Member States shall notify their programmes to the Commission before 15 April of each year. However, Member States may simply notify any amendments or adjustments to programmes notified the previous year."

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 6 April 2001.

For the Commission

Franz Fischler

Member of the Commission

(1) OJ L 173, 1.7.1997, p. 1.

(2) OJ L 265, 30.9.1998, p. 1.

(3) OJ L 319, 21.11.1997, p. 4.

(4) OJ L 161, 1.7.2000, p. 65.

(5) COM(2001) 70 final.

Commission Regulation (EC) No 1336/2001 of 2 July 2001

amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey(1), as amended by Regulation (EC) No 2070/98(2), and in particular Article 5 thereof,

Whereas:

(1) Commission Regulation (EC) No 2300/97(3), as last amended by Regulation (EC) No 704/2001(4), lays down provisions for the implementation of measures to improve the production and marketing of honey.

(2) There have been changes to the number of hives in the Member States' communications to update the structural data on the situation in the sector as provided for in Article 1(a) of Regulation (EC) No 2300/97. As a result, Annex I to that Regulation should be amended.

(3) Article 2(2) of Regulation (EC) No 2300/97 lays down a final date for implementation of measures under annual programmes. As a result, the new Annex I is to apply for the first time to the annual programmes covering the 2001/02 marketing year.

(4) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Annex I to Regulation (EC) No 2300/97 is replaced by the Annex hereto.

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

It shall apply for the first time to the annual programmes covering the 2001/02 marketing year.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 2 July 2001.

For the Commission

Franz Fischler

Member of the Commission

(1) OJ L 173, 1.7.1997, p. 1.

(2) OJ L 265, 30.9.1998, p. 1.

(3) OJ L 319, 21.11.1997, p. 4.

(4) OJ L 98, 7.4.2001, p. 14.

Council Directive 2001/110/EC of 20 December 2001 relating to honey

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 37 thereof,

Having regard to the proposal from the Commission(1),

Having regard to the opinion of the European Parliament(2),

Having regard to the opinion of the Economic and Social Committee(3),

Whereas:

(1) Certain vertical directives relating to foods should be simplified in order to take account only of the essential requirements to be met by the products they cover in order

that those products may move freely within the internal market, in accordance with the conclusions of the European Council held in Edinburgh on 11 and 12 December 1992, confirmed by those of the European Council in Brussels on 10 and 11 December 1993.

(2) Council Directive 74/409/EEC of 22 July 1974 on the harmonisation of the laws of the Member States relating to honey(4) was justified by the fact that differences between national laws on the definition of honey, the various types of honey and the characteristics required of it could result in conditions of unfair competition likely to mislead consumers, and thereby have a direct effect on the establishment and functioning of the common market.

(3) Directive 74/409/EEC and its subsequent amendments consequently established definitions, specified the different types of honey which could be placed on the market under appropriate names, laid down common rules on composition and determined the main labelling information so as to ensure the free movement of these products within the Community.

(4) For the sake of clarity Directive 74/409/EEC should be recast, in order to make rules on the conditions for the production and marketing of honey more accessible and to bring it into line with general Community legislation on foodstuffs, particularly legislation on labelling, contaminants and methods of analysis.

(5) The general food-labelling rules laid down in Directive 2000/13/EC of the European Parliament and of the Council(5) should apply subject to certain conditions. In view of the close link between the quality of honey and its origin, it is indispensable that full information on those matters be available so that the consumer is not misled regarding the quality of the product. The particular consumer interests as regards the geographical characteristics of honey and full transparency in this regard necessitate that the country of origin where the honey has been harvested should be included in the labelling.

(6) No pollen or other individual ingredient of honey is to be removed, unless that is inevitable when organic and inorganic foreign materials are removed. That process may be carried out by filtering. Where such filtering leads to the removal of a significant quantity of pollen, the consumer must be correctly informed to that effect by means of an appropriate indication on the label.

(7) Honey the name of which includes indications concerning floral, vegetable, regional, territorial or topographical origin or specific quality criteria may not have filtered honey added to it. So that the transparency of the market may be improved, the labelling of filtered honeys and baker's honeys must be mandatory for every transaction on the bulk market.

(8) As the Commission stressed in its communication to the European Parliament and the Council of 24 June 1994 on European apiculture, the Commission may adopt methods of analysis to ensure compliance with the compositional characteristics and additional specific statements for all honey marketed in the Community.

(9) It is desirable to take account of the work achieved on a new Codex standard for honey, adjusted, as appropriate, to the specific requirements of the Community.

(10) In accordance with the principles of subsidiarity and proportionality established by Article 5 of the Treaty, the objective of laying down common definitions and rules for the products concerned and bringing the provisions into line with general Community legislation on foodstuffs cannot be sufficiently achieved by the Member States and can

therefore, by reason of the nature of this Directive, be better achieved by the Community. This Directive does not go beyond what is necessary to achieve the said objective.

(11) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission(6).

(12) To avoid creating new barriers to free movement, Member States should refrain from adopting, for the products in question, national provisions not provided for by this Directive,

HAS ADOPTED THIS DIRECTIVE:

Article 1

This Directive shall apply to the products defined in Annex I. These products shall meet the requirements set out in Annex II.

Article 2

Directive 2000/13/EC shall apply to the products defined in Annex I, subject to the following conditions:

1. the term "honey" shall be applied only to the product defined in Annex I, point 1, and shall be used in trade to designate that product;
2. the product names referred to in Annex I, points 2 and 3, shall apply only to the products defined therein and shall be used in trade to designate them. These names may be replaced by the simple product name "honey", except in the case of filtered honey, comb honey, chunk honey or cut comb in honey and baker's honey.

However,

(a) in the case of baker's honey, the words "intended for cooking only" shall appear on the label in close proximity to the product name;

(b) except in the case of filtered honey and baker's honey, the product names may be supplemented by information referring to:

- floral or vegetable origin, if the product comes wholly or mainly from the indicated source and possesses the organoleptic, physico-chemical and microscopic characteristics of the source,
- regional, territorial or topographical origin, if the product comes entirely from the indicated source,
- specific quality criteria;

3. where baker's honey has been used as an ingredient in a compound foodstuff, the term "honey" may be used in the product name of the compound food instead of the term "baker's honey". However, in the list of ingredients, the term as referred to in Annex I, point 3, shall be used;

4. (a) the country or countries of origin where the honey has been harvested shall be indicated on the label.

However, if the honey originates in more than one Member State or third country that indication may be replaced with one of the following, as appropriate:

- "blend of EC honeys",
- "blend of non-EC honeys",
- "blend of EC and non-EC honeys".

(b) For the purpose of Directive 2000/13/EC and in particular Articles 13, 14, 16 and 17 thereof, the particulars to be indicated according to subparagraph (a) shall be considered as indications according to Article 3 of that Directive.

Article 3

In the case of filtered honey and baker's honey, bulk containers, packs and trade documents shall clearly indicate the full product name, as referred to in Annex I, point 2(b)(viii), and point 3.

Article 4

The Commission may adopt methods to permit verification of compliance of honey with the provisions of this Directive. These methods shall be adopted in accordance with the procedure laid down in Article 7(2). Until the adoption of such methods, Member States shall, whenever possible, use internationally recognised validated methods such as those approved by Codex Alimentarius to verify compliance with the provisions of this Directive.

Article 5

For the products defined in Annex I, Member States shall not adopt national provisions not provided for by this Directive.

Article 6

The measures necessary for the implementation of this Directive relating to the matters referred to below shall be adopted in accordance with the procedure set out in Article 7(2):

- bringing this Directive into line with general Community legislation on foodstuffs,
- adaptations to technical progress.

Article 7

1. The Commission shall be assisted by the Standing Committee on Foodstuffs (hereinafter referred to as "the Committee") set up by Article 1 of Decision 69/414/EEC(7).

2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 8

Directive 74/409/EEC is hereby repealed with effect from 1 August 2003.

References to the repealed Directive shall be construed as references to this Directive.

Article 9

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 August 2003. They shall forthwith inform the Commission thereof.

The measures shall be applied so as to:

- authorise the marketing of the products defined in Annex I if they conform to the definitions and rules laid down in this Directive, with effect from 1 August 2003;
- prohibit the marketing of products which fail to conform to this Directive, with effect from 1 August 2004.

However, the marketing of products which fail to conform to this Directive and labelled before 1 August 2004 in accordance with Directive 74/409/EEC shall be permitted until stocks run out.

When Member States adopt these measures, these shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

Article 10

This Directive shall enter into force on the 20th day following that of its publication in the Official Journal of the European Communities.

Article 11

This Directive is addressed to the Member States.

Done at Brussels, 20 December 2001.

For the Council

The President

C. Picqué

(1) OJ C 231, 9.8.1996, p. 10.

(2) OJ C 279, 1.10.1999, p. 91.

(3) OJ C 56, 24.2.1997, p. 20.

(4) OJ L 221, 12.8.1974, p. 10. Directive as last amended by the 1985 Act of Accession of Spain and Portugal.

(5) OJ L 109, 6.5.2000, p. 29.

(6) OJ L 184, 17.7.1999, p. 23.

(7) OJ L 291, 19.11.1969, p. 9.

ANNEX I

NAMES, PRODUCT DESCRIPTIONS AND DEFINITIONS

1. Honey is the natural sweet substance produced by *Apis mellifera* bees from the nectar of plants or from secretions of living parts of plants or excretions of plant-sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in honeycombs to ripen and mature.

2. The main types of honey are as follows:

(a) according to origin:

(i) blossom honey or nectar honey

Honey obtained from the nectar of plants;

(ii) honeydew honey

Honey obtained mainly from excretions of plant sucking insects (Hemiptera) on the living part of plants or secretions of living parts of plants;

(b) according to mode of production and/or presentation:

(iii) comb honey

Honey stored by bees in the cells of freshly built broodless combs or thin comb foundation sheets made solely of beeswax and sold in sealed whole combs or sections of such combs;

(iv) chunk honey or cut comb in honey

Honey which contains one or more pieces of comb honey;

(v) drained honey

Honey obtained by draining decapped broodless combs;

(vi) extracted honey

Honey obtained by centrifuging decapped broodless combs;

(vii) pressed honey

Honey obtained by pressing broodless combs with or without the application of moderate heat not exceeding 45 °C;

(viii) filtered honey

Honey obtained by removing foreign inorganic or organic matter in such a way as to result in the significant removal of pollen.

3. Baker's honey

Honey which is (a) suitable for industrial uses or as an ingredient in other foodstuffs which are then processed and (b) may:

- have a foreign taste or odour, or
- have begun to ferment or have fermented, or
- have been overheated.

ANNEX II

COMPOSITION CRITERIA FOR HONEY

Honey consists essentially of different sugars, predominantly fructose and glucose as well as other substances such as organic acids, enzymes and solid particles derived from honey collection. The colour of honey varies from nearly colourless to dark brown. The consistency can be fluid, viscous or partly to entirely crystallised. The flavour and aroma vary, but are derived from the plant origin.

When placed on the market as honey or used in any product intended for human consumption, honey shall not have added to it any food ingredient, including food additives, nor shall any other additions be made other than honey. Honey must, as far as possible, be free from organic or inorganic matters foreign to its composition. With the exception of point 3 of Annex I, it must not have any foreign tastes or odours, have begun to ferment, have an artificially changed acidity or have been heated in such a way that the natural enzymes have been either destroyed or significantly inactivated.

Without prejudice to Annex I, point 2(b)(viii), no pollen or constituent particular to honey may be removed except where this is unavoidable in the removal of foreign inorganic or organic matter.

When placed on the market as honey or used in any product intended for human consumption, honey must meet the following composition criteria:

1. Sugar content

1.1. Fructose and glucose content (sum of both)

-blossom honey not less than 50g/100g

-honeydew honey, blends of honeydew honey
with blossom honey not less than 45g/100g

1.2. Sucrose content

-in general not more than 5g/100g

-false acacia, alfalfa, Menzies Banksia,, French
honeysuckle, redgum, leatherwodd, not more than 10g/100g

-lavender, borage not more than 15g/100g

2. Moisture content

-in general not more than 20%

- heather an baker's honey in general not more than 23%

-baker's honey from heater not more than 25%

3. Water-insoluble content	
-in general	not more than 0,1g/100g
-pressed honey	not more than 0,5g/100g
4. Electrical conductivity	
-honey not listed below, and blends of these honeys	not more than 0,8 mS/cm
-honeydew and chestnut honey and blends of these except with those listed below	not more than 0,8 mS/cm
-exceptions: strawberry tree, bell heather, eucalyptus, lime, ling heather, manuka or jelly bush, tea tree	
5. Free acid	
-in general	not more than 50 milliequivalents acid per 1000g
-baker's honey	not more than 80 milliequivalents acid per 1000g
6. Diastase activity and hydroxymethylfurfural content (HMF) determined after processing and blending	
(a) Diastase activity (Schade scale)	
-in general except baker's honey	not less than 8
-honey with low natural enzyme content (citrus honey) and HMF content of not more than 15mg/kg	not less than 3
(b) HMF	
- in general except baker's honey	not more than 40mg/kg (subject to the provisions of second intent)
-honeys of declared origin from regions with tropical climate and blends of these honey	not more than 80mg/kg

Commission Regulation (EC) No 1216/2002 of 5 July 2002

amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey(1), as amended by Regulation (EC) No 2070/98(2), and in particular Article 5 thereof,

Whereas:

(1) Commission Regulation (EC) No 2300/97(3), as last amended by Regulation (EC) No 1336/2001(4), lays down provisions for the implementation of measures to improve the production and marketing of honey.

(2) There have been changes to the number of hives in the Member States' communications to update the structural data on the situation in the sector as provided for

in Article 1(a) of Regulation (EC) No 2300/97. As a result, Annex I to that Regulation should be amended.

(3) Article 2(2) of Regulation (EC) No 2300/97 lays down a final date for implementation of measures under annual programmes. As a result, the new Annex I is to apply for the first time to the annual programmes covering the 2002/03 marketing year.

(4) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Annex I to Regulation (EC) No 2300/97 is replaced by the Annex hereto.

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

It shall apply for the first time to the annual programmes covering the 2002/03 marketing year.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 5 July 2002.

For the Commission

Franz Fischler

Member of the Commission

(1) OJ L 173, 1.7.1997, p. 1.

(2) OJ L 265, 30.9.1998, p. 1.

(3) OJ L 319, 21.11.1997, p. 4.

(4) OJ L 180, 3.7.2001, p. 21.

Commission Regulation (EC) No 1387/2003 of 1 August 2003

amending Regulation (EC) No 2300/97 on detailed rules to implement Council Regulation (EC) No 1221/97 laying down general rules for the application of measures to improve the production and marketing of honey

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1221/97 of 25 June 1997 laying down general rules for the application of measures to improve the production and marketing of honey(1), as amended by Regulation (EC) No 2070/98(2), and in particular Article 5 thereof,

Whereas:

(1) Commission Regulation (EC) No 2300/97(3), as last amended by Regulation (EC) No 1216/2002(4), lays down provisions for the implementation of the national annual programmes provided for in Regulation (EC) No 1221/97. The Community's financial contribution to these programmes is based on the total number of hives in each Member State as listed in the Annex to Regulation (EC) No 2300/97.

(2) There have been changes to the number of hives in the Member States' communications to update the structural data on the situation in the sector as provided for in Article 1(a) of Regulation (EC) No 2300/97.

(3) Regulation (EC) No 2300/97 should therefore be amended accordingly.

(4) Given that Article 2(2) of Regulation (EC) No 2300/97 fixes the 31 August as the final date for implementation of measures under annual programmes, this Regulation should apply from the 2003/04 marketing year.

(5) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Poultrymeat and Eggs,

HAS ADOPTED THIS REGULATION:

Article 1

Annex I to Regulation (EC) No 2300/97 is replaced by the Annex hereto.

Article 2

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Union.

It shall apply for the first time to the annual programmes covering the 2003/2004 marketing year.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 1 August 2003.

For the Commission

Franz Fischler

Member of the Commission

(1) OJ L 173, 1.7.1997, p. 1.

(2) OJ L 265, 30.9.1998, p. 1.

(3) OJ L 319, 21.11.1997, p. 4.

(4) OJ L 177, 6.7.2002, p. 4.