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Applied Market Research for Organic Products: Morel Mushroom Marketing in the Cukurova Region of Turkey

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1. Introduction

Generally speaking, the aim of agricultural development is to increase the output of farm products. For increased production new technology is required because increased agricultural production is derived from new techniques or methods put into practice on farms. It is simply not possible to get a significant increase in production by using the same plant and animal materials and the same production techniques. New technology includes the methods by which farmers cultivate and harvest crops and care for livestock. It includes the seeds, the fertilizers, the pesticides, the medicines and the feeds, the tools and the sources of power. It also includes enterprise combinations by which farmers seek to make the best use of their land and labour.

For agricultural development to proceed, these must constantly be changing. When they stop changing agriculture becomes stagnant. Production stops increasing and it may even decline due to decreasing soil fertility or to increasing damage by multiplying pests and diseases.

Most of the new methods that will increase agricultural production require the use of special inputs like seeds, fertilizers, pesticides, livestock feeds and medicines. Today significant increases in agricultural production have been achieved by intensive use of fertilizers, medicines, pesticides and herbicides.

To meet the increasing demand of the increasing population in certain countries, governments have supported the policies that encourage intensive use of fertilizers, pesticides and other inputs. Intensive and unconscious uses of inputs have resulted in soil deterioration, environmental pollution and increase in residue risks in crops and livestock products. These events started to threaten the health of human beings, animals and crops.

Although the emergence of the concept of organic agriculture or alternative agriculture dates back to the beginning of the 1900's, it gained importance in the 1970's. In the beginning of the 1970's, organic products were mainly produced for local markets but in the 1980's, organic production increased substantially in developed countries.

Today Australia, Argentina, Italy, the USA, Brazil and Germany are the leading countries in the organic farming domain (Willer and Yussefi, 2002).

In Turkey the movement towards organic farming started in 1984-1985 with the foreign demand on our traditional products of dried grapes, dried figs and dried apricot. The application of organic farming is growing very fast. Today there are 13,187 farmers producing 95 products and the total area allocated to organic farming has reached to 59,649 ha in Turkey (Tarım ve Köyisleri Bakanlığı, 2001).

An efficient marketing system is essential for the development of non-organic and organic production. There must be a market for these products and a price for them high enough to repay the farmer for his cash costs and his efforts in producing them.

Besides the production aspects, three things are necessary for the development of organic farming in Turkey:

1. A demand for them.
2. An efficient marketing system.
3. Farmers' confidence in the working of the marketing system.

It is simply impossible to attain developments in organic farming without a strong market demand for organic products. The demand for organic products can be divided into two groups:

1. Domestic demand,
2. International demand.

For both markets, market research and marketing research are needed. Some brief information about these concepts will be given below:

A - Market Research

Market research is executed before and during investment in the related field. For example if we are planning to invest in the fruit and vegetable packing industry, we have to conduct market research. This research covers the identification of potential fruit and vegetable growing areas, consumers' preferences and sales conditions, prices, the marketing system and market size. In this case we should examine the following points:

- Where can we procure fruits and vegetables?
- What are the purchasing prices of fruits and vegetables?
- What are the preferences of consumers?
- Where shall we sell them?
- What are the selling prices of the fruits and vegetables?
- What are the selling quantities?
- When do consumers want to buy?

In short, market research examines: the product(s), the consumer, prices, conditions of price determination, the market place, market structure and market size.

B - Marketing Research

It involves the determination of the marketing strategy in order to enter into a market that was previously examined. We have to establish a marketing policy based on the information collected in market research:

- What will the prices of our products be?
- How shall we organize marketing channels?
- How shall we organize selling units?

- What marketing policies are followed by the competitors?

In most cases market and marketing researches are interrelated.

2. Brief Summary of Some Market Research on Organic Products

In order to provide a better understanding of market research conducted on organic products two examples from EU countries and one example from Turkey will be presented below:

Marketing Behaviour of Organic Farmers

By
Fabio Maria Santucci

In 1999, Italy was the country with the largest agricultural land devoted to organic farming. The latest semi-official figures show that there are 49,188 farmers with 953,057 hectares which are managed according to EU regulations. However, markets are not properly organized and developed. According to the International Trade Center (ITC, 1999), the European market for organic products are exploding, but it seems that not all organic farmers are able to fully exploit this opportunity (Michelsen et al., 1999).

In Italy, several investigations have been carried out in order to understand how organic farmers were positioning themselves in the market. In Northern and Central Italy the first organic farmers used several marketing channels and tried to establish, as much as possible, direct links with the consumers, or with a limited number of specialized organic shops. In Southern Italy, where local consumption was not enough to absorb the entire production the early adopters of organic farming had to also look for markets far away, through marketing cooperatives and wholesalers. The recent entry of several supermarket chains into the organic market has been another challenge / opportunity for the farmers. More specifically, in Northern Italy contract farming and organic farmers' marketing associations are developing quite fast.

This research reflects the opinions of farmers about the situation of organic farming at the time of the research period. For the research 884 farmers from the North, Centre, South and Isles were interviewed.

The findings of the research depicted that most organic farms are family run, and they are mostly located on the hills and flatlands. The number of organic farmers has begun increasing recently when EU regulations ensured a clear legislation and subsidies were guaranteed to farmers who would convert.

It was found that organic farming attracts the younger generations; age distribution is quite good because almost 35 % are under 40 years of age. Another positive aspect is represented by the level of formal education of interviewed farmers: 10% have a high school certificate in agriculture and 3% hold a university degree in agriculture. Almost 20 % of organic farmers have previous different working experiences in government and private sectors.

The average size of farms is about 26 hectares out of which 17 ha are managed organically. It is a fact that the agricultural income derived from organic farming (without considering the subsidies), remains normally small, below the income from conventional crops and animal productions. Only the shares of organic citrus and wine producers are higher in total agricultural income. Almost 100% of their income comes from organic output (98% citrus and 95 % wine producers).

Other important findings of the research could be summarized as follows:

The conversion period is the most critical period because the majority of the land is devoted to green manure that does not produce any cash crop.

The conversion period's products are not considered as organic products and therefore there is no price premium.

The most interesting part of this research is that the main sale channel remains the wholesalers, whereas direct sale to consumers or other shorter ways are used by a small number of farmers. Moreover, farmers do not have confidence in the marketing system because 74% of them declared that they do not rely on any source of advice. Hence a major problem seems to be the lack of advice, either private or public, about marketing strategies and market opportunities.

The Demand for Organic Fruit and Vegetable Products in EU Countries: A Survey of the Expectations of Market Agents

By

Antonio M.D. Nucifora and Luri Peri

Organic products are healthier and better tasting and their quality is as good as that of traditionally grown fruits and vegetables (Huang, 1996; Organic Control Italy, 2000). Therefore, it is reasonable to expect a substantial increase in the demand for these products. However, the shift in favor of these goods has been rather modest. The purpose of this research is to identify current bottlenecks and future marketing trends for these products in the EU and suggest possible strategies for improvement.

The survey was conducted in 1999 and 63 wholesalers or intermediate consumers were interviewed. The distribution of the interviewed firms by countries is as follows: Italy 23, UK 15, Germany 14 and France 11.

The findings of the research show that the demand for organic fruit and vegetable products has been increasing in recent years. Most agents believe that while the demand for traditional fruit and vegetables remained constant over the last few years, the demand for IPM (Integrated Pest Management) fruits and vegetables and especially the demand for organic products have been increasing. The increase in demand is also reflected in the rise in the number of firms which trade organic products. However, in spite of recent increases, the demand for these products remains small. It is estimated that, at present, the relative importance of organic products in total fruit and vegetable sales is between 1 % and 5 % in Italy, France and the UK, and somewhat higher in Germany (reaching 20% in some instances).

Almost all agents (95%) are optimistic about long-term market developments for organic products. Of these about 45 % expects a rapid increase in the demand for these products over the next five years. As many as 50 % expect only a moderate increase.

In the short-term, however, it is interesting to note that while about 56% of the agents interviewed expect an increase in demand for organic products over the next two years, a large number expect the demand for IPM products to grow 51 % and that for organic products to remain relatively stable (38 %).

We need a good understanding of the basic characteristics of the demand for these products.

Organic fruits and vegetables are marketed mainly via specialized outlets and franchising stores. Until recently these products were available only in few large food retailers although the interest of large retailers appears to have increased in recent years. Most of the customers are regular buyers of organic products. Over a third buys organic fruit and vegetables on a weekly basis (36 %) and 20 % buys organic at least once a fortnight (Organic Control Italy, 2000).

Brands play a very important role in organic foods. In Italy the number of farms which have adopted certification has increased from about 500 in 1993 to 5000 in 2000. As a result most of the marketed organic fruit and vegetables now come with a brand and/or certification which is not the case of traditional products.

Prices of organic fruit and vegetables present a mark-up of up to 80% with respect to traditional products and up to 50 % with respect IPM products. It is important to underline that the price gap between traditional and IPM products is about 10% on average.

The high level of prices is due in part to the higher costs associated with organic production, and also to the high distribution costs associated with relatively small quantities. Also high quality packing explains a part of high prices charged. The cardboard box type of package is the most requested (52 %) followed by wood boxes (20 %).

The results of this research indicate that the marketing profile of organic fruit and vegetables is designed for a small specialized market of high quality products.

As far as producers, wholesalers and retailers are concerned the main problem appears to be related to the variability in the quality of the products (ripeness and homogeneity) and to the lack of regular supplies. However it should be noted that the quality of supplies has been increasing significantly in recent years.

From the consumers' point of view the main problem is the high price of these products. Irregular supplies and poor quality are also important.

The study shows that the current price mark-up is appropriate for niche high quality products. These types of markets are characterized by high profits but limited growth (Austin, 1992; Brown, 1994; Porter, 1998). Prices will have to be reduced for organic products to become widely consumed. According to a market agent interviewed, a much smaller mark-up of up to 30 % would be justified to reflect the higher costs incurred. In addition to reducing prices it is necessary to better inform the consumers.

The results of this research show that the demand for organic fruit and vegetable products is likely to remain relatively small for quite some time. Although the demand has increased in recent years, a further increase in consumption is expected over the next 5 years.

The reasons could be attributed to two factors: First, the marketing strategy for these products has been designed for a high quality small niche market, with high prices and specialized outlets. Second, there is a lack of adequate information about the differences between IPM and organic products.

This trend is unlikely to change unless prices of organic fruit and vegetables are reduced significantly and an effort is made to increase consumers' understanding of organic products and their certification. In addition, an improvement in the regularity of supplies would facilitate the expansion of the market.

Forecasting Potential Consumer Demand of Environmentally Friendly Agricultural Products in the Provinces of Istanbul, Ankara and İzmir

by

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Agricultural Economics Research Institute, Ankara, 1999

The main purposes of this research are as follows:

- Determination of the consumers' awareness about organic farming,

- Determination of the consumers' sensitivity towards health risks that might result from pesticide residues,
- Determination of a target consumer profile that could afford consuming organic products,
- Determination of advertising methods of organic products for target consumers

This study was conducted in the three biggest provinces of Turkey. These provinces were selected as a research area because these cities have the consumer groups with the highest purchasing power as well as medium and low income groups. Therefore, it is assumed that the outcomes of the research will not only represent the characteristics of these three cities but also other cities with similar socioeconomic conditions in Turkey.

The findings of the research could be summarized as follows:

- As consumers are buying food products they consider the importance of the nutritional value of products in addition to the inexistence of chemical residues rather than their price levels.
- Consumers believe that the taste and reliability (from the health stand point) of fruit and vegetables have decreased as compared to the past.
- Consumers think that almost all food products contain residues except flour and bakery products.
- Consumers believe that the products that are produced out of normal season (in green houses) contain a great amount of residues which are harmful for human health.
- Most consumers wash fruit and vegetables with water and/or soap because they believe fruits and vegetables contain hormones and other residues. They believe that by washing they reduce the health risk that they will most probably face in the future.
- Consumers prefer university among different organisations for residue control works in fruit and vegetables.
- A significant number of consumers have never heard of organic product.
- Tomato is the most demanded vegetable and apple is most demanded fruit among organic fruit and vegetables.
- Consumers are willing to pay a 2% mark-up for organic tomatoes with respect to traditional products.

The findings of the research indicate that there is a purchasing potential of high income groups for organic products in the domestic markets provided that the products are certified. This result confirms that high income and above middle aged group is sensitive to health risks.

3. Morel Mushroom Marketing in the Cukurova Region of Turkey

Morels embody the mystique of mushrooms. They grow in several specialized habitats especially under the pine and juniper trees and at the bases of dying and dead elms. In Turkey, they grow in the mountainous areas of the Black Sea and Mediterranean Sea in Central and Eastern Anatolia, and in the Aegean region. The Cukurova Region which covers the provinces of Adana, İcel and Hatay is located in the eastern part of the Mediterranean Sea (Figure 1).

Morels grow naturally and start to appear from March till end of May. However, so far this valuable mushroom has not been grown through artificial cultures in Turkey. It is marketed

either fresh or in dried form. It is from 8.5 kg of fresh Morels that 1 kg of dry Morels is produced. Because of its delicious taste and high nutritional value there is an increasing demand for Morels in the international markets.



Figure 1. Cukurova Region of Turkey

Table 1. Quantity of Dried Morel Exports (kg) by Countries

Country	1999	2000
France	5,810	851
Belgium	18	439
Switzerland	6,747	541
Germany	2,188	293
Spain	100	9
USA	380	-
GB	-	16
Hong-Kong	100	-
Total	15,343	2,149

Source: Records of Aegean Exporting Union, 2001. İzmir.

Table 2. Value of Dried Morel Exports (FOB USD) by Countries

Country	1999	2000
France	783,631	140,072
Belgium	2,322	92,421
Switzerland	867,513	93,797
Germany	370,642	36,263
Spain	20,300	1,323
USA	48,740	-
GB	-	3,434
Hong-Kong	11,650	-
Total	2,104,798	367,310

Source: Ibid

Almost all of the harvested Morels in Turkey are exported; the majority of them in dry form. Fresh Morels are exported upon request from importing firms and are transported in the deep

freezers. France, Germany, Switzerland, and Belgium are the main importing countries of fresh and dried Morels from Turkey. Export amounts and values of fresh and dried Morels by countries are provided in tables 1,2,3 and 4.

Table 3. Quantity of Fresh/Frozen Morel Exports (kg) by Countries

Country	1999	2000
France	51,293	15,443
Spain	160	-
Belgium	-	102
Netherlands	280	200
Sweeden	310	-
Switzerland	13,726	4,764
Austria	14,338	100
Germany	35,743	5,634
Italy	-	100
GB	2,214	1,825
Ireland	-	222
Greece	-	90
Total	118,064	28,480

Source: Ibid

Table 4. Value of Fresh/Frozen Morel Exports (FOB USD) by Countries

Country	1999	2000
France	866,552	458,391
Spain	4,542	-
Belgium	-	3,121
Netherlands	3,469	4,382
Sweeden	5,932	-
Switzerland	302,830	150,884
Austria	111,016	3,569
Germany	343,483	146,801
Italy	-	2,328
GB	32,240	47,854
Ireland	-	5,258
Greece	-	3,055
Total	1,670,064	825,643

Source: Ibid

3.1. Marketing Channels of Morels in the Cukurova Region

Picking Morels is a very difficult job because of the similarity of its cap color to the soil color. Therefore, one requires very keen eyes to see them in the ground.

Morels picked by rural people are generally sold to local buyers in the village (Figure 1). In general, there are 1-3 local buyers in a village depending on its size. The local buyers sell their Morels to middlemen in cities, some of whom then sell them to the merchants in cities. These

merchants are generally exporters. Some middlemen buy Morels from local buyers in the villages on behalf of a city merchants/firms. These types of buyers are the employees of firms, who are also sorting the Morels during this process. Also, the waste during changing of hands from farmer to local buyer and from the local buyer to the middlemen amounts to 10 and 15%, respectively. Storage for two days generally amounts to 10% wastage due to water loss.

As mentioned earlier, Morels are almost entirely exported from Turkey. They are exported in two different ways: (a) as fresh/frozen and (b) dried. However, the majority of the Morels are exported in the dried form.

Table 5. Value of Total Morel Exports (FOB USD) by Countries

Country	1999			2000		
	F	D	T	F	D	T
France	866,552	783,631	1,650,183	458,391	140,072	598,463
Spain	4,542	20,300	24,842	-	1,323	1,323
Belgium	-	2,322	2,322	3,121	92,421	95,542
Netherlands	3,469	-	3,469	4,382	-	4,382
Sweden	5,932	-	5,932	-	-	-
Switzerland	302,830	867,513	1,170,343	150,884	93,797	244,681
Austria	111,016	-	111,016	3,569	-	3,569
Germany	343,483	370,642	714,125	146,801	36,263	183,064
Italy	-	-	-	2,328	-	2,328
GB	32,240	-	32,240	47,854	3,434	51,288
Ireland	-	-	-	5,258	-	5,258
Greece	-	-	-	3,055	-	3,055
USA	-	48,740	-	-	-	-
Hong-Kong	-	11,650	-	-	-	-
Total	1,670,064	2,104,798	3,714,472	825,643	367,310	1,192,953

Source: Ibid

3.2. Morel Market Research in the International Markets

So far, brief information on the marketing channels of Morel Mushrooms in Turkey has been provided. Now, a step-by-step summary of the market research carried out for Morel mushrooms in the Cukurova region is presented below.

Where the Morel Mushrooms Evolved from?

Morel mushrooms are grown naturally under the forest trees in the Taurus mountainous areas of the region at the altitudes of 500 to 1500 m. The first Morel mushrooms appeared in early March in the low altitude forests. At higher altitudes the harvesting period goes towards the end of March to the beginning of April or even later. A careful study could give a good idea of the Morel mushroom potential of each village.

What are the Purchasing Prices of Morel Mushrooms?

It is not an easy task to determine the purchasing prices as they heavily depend on the demand of the importing countries. The prices are determined in the free markets of European countries and other countries. The purchasing prices are dependent on the demand of the importing

countries and are thus completely reflected in the rural areas. Thus, a higher demand in the importing countries would mean higher prices for the villagers and vice versa. For example, the purchasing prices of fresh Morel mushrooms in the villages varied between 6-10 Euro per kilogram during March-May 2002.

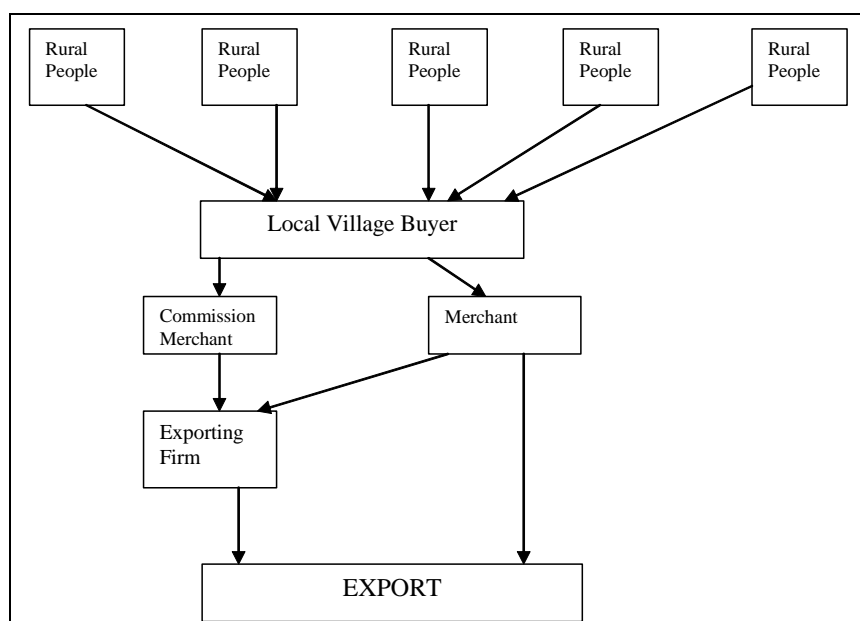


Figure 2. Marketing Channel of Morel Mushrooms in the Cukurova Region

What are the Customer Preferences?

Market research studies and a direct contact with importing firms in different countries through the Internet showed that the customers' preferences differ by countries and firms. For example, the firms in Switzerland always prefer high quality Morel mushrooms. But the firms in France buy almost every quality of Morel mushrooms from Turkey.

Where are the Morel Mushrooms Sold?

This depends on the buying prices of different firms in different countries. Therefore, Turkish exporters in markets of different countries should very carefully follow the prices of Morel mushrooms.

What are the Selling Prices of Morel Mushrooms?

The prices of Morel mushroom vary greatly depending on time, quality and supply. It has been observed that the prices were significantly higher around the Easter holiday; the prices started to fall and fluctuate after this holiday. Also, prices started to fall from Euro 110 to Euro 80 per kilogram in dry Morel mushrooms 10 days after the Easter holiday in 2002 due to increased imports from India and China. Therefore, unexpected supply changes could cause sharp fluctuations in the market prices. The average prices in the European countries ranged from Euro 15-25 for fresh Morels, and Euro 85-105 per kilogram for dry Morels.

What are the Selling Quantities?

In order to get an estimate on the selling quantities all the official records in relation to exports should be examined carefully. In addition, the exporting firm should keep detailed records for its selling activities.

When do Consumers Want To Buy?

Although there have been some fluctuations in the demand of dried Morels, their demand could be considered as being quite stable during the year except on the days just before the Easter holiday, when the demand suddenly increases for the Easter holiday.

4. Conclusions

It needs to be emphasized that an efficient marketing system is essential for the development of organic production of agricultural products. There must be a demand for organic products in the market and their prices should be high enough to satisfy the farmer and his family's efforts. It is, thus, impossible to develop organic farming without a strong market demand for organic products.

Also important for promotion of organic farming is the development of new techniques, application of efficient extension and the conducting of marketing researches.

Examination and evaluation of market researches in relation to organic products that have been conducted so far in Turkey show that they are inadequate in number and in scope. This is probably due to the fact that the majority of Turkish organic fruits and vegetables are exported. However, several market researches in relation to organic products have been carried out in Europe, the USA and other developed countries. The outcomes of these researches reveal that further market researches are needed to encourage organic production.

In Turkey, the share of organic fruit and vegetables in terms of total marketed fruit and vegetables is negligible. Organic fruit and vegetables are available only in big cities during certain periods and in certain supermarkets. It is clear that sound policies are needed to encourage farmers to attempt organic farming including a reliable marketing system to sustain the confidence of farmers.

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