

# Marketing structure of fresh fruit and vegetable in Turkey

## Abstract

Turkey has a very high level of fruit and vegetable production potential due to its climate and soil characteristics. Agricultural arable land in the world and in our country is limited and this causes adequate and balanced nutrition problems for the rapidly increasing world population. Production and consumption of fruit and vegetables can be a solution for the problem of balanced nutrition. Fruit and vegetables are produced almost every season and in every region in Turkey unlike most countries in the world where production is limited to specific areas or seasons. According to Turkey Statistical Institute, total fruit and vegetable production in Turkey in 2016 were 49.2 million tons, of this, 30.2 million tons were from vegetable production and 19 million tons were from fruit production. Turkey also has an important position in the foreign trade as well as its fresh fruit and vegetables production potential. Turkey exported 6.9 million tons of fresh fruit and vegetables in 2016. Income from the total fruit and vegetable exports was 1.9 billion dollars. However there are a number of problems in the fresh fruit and vegetable marketing in Turkey even though Turkey has high production capacity and many different kinds of fruits and vegetables. These problems affect the development of the processed fruit and vegetable industry and producer and consumer prices. Due to undeveloped marketing structure and the high number of intermediaries, producer income is reduced and the marketing margin is increased. Farmers need to be organized, especially in marketing. In this study, it is aimed to examine the fruit and vegetable marketing structure and marketing problems in Turkey.

**Keywords:** fruit, marketing, marketing margin, vegetable, horticulture

## Introduction

The production of fresh fruits and vegetables is an important sector in Turkish agriculture and the national economy. 25% of the total population is employed in the agriculture sector. Turkish fresh fruit and vegetable sub-sector has an important role because of its employment capacity. Approximately 5 million people work in that sector at various levels such as production, processing and marketing area. Also, fruit and vegetables sector is an important supply sector for processing and export industry and it is an important sector that creates demand for fertilizers, feed and pesticides besides fuel and electricity inputs. The limited amount of arable land available in the world is an important issue in terms of providing adequate and balanced nutrition. Production and consumption of fruits and vegetables is of great importance for the solution of balanced nutrition problems. Turkey is quite an important country for fresh fruit and vegetable production in terms of its geographical location, climate and soil properties. Almost every season and in every region of Turkey, fruit and vegetable production is possible. However, certain regions are taking more interest in producing these products. For example, the Mediterranean and the Aegean region of Turkey produce 54% of the total fruit production and they produce 49% of the total vegetables production.<sup>1</sup>

Marketing of fruits and vegetables is as important as the production of the products. Market structure for fruits and vegetables vary depending on the country or the product. In some cases produce can be delivered directly to the consumer by the producer. However lack of strong producer organizations increase loyalty to the intermediaries and agents and this causes an increase in the marketing margin. And

also, agricultural production potential in Turkey is not yet being fully used and this issue causes problems that slow down the development of the marketing system. In order to achieve a strong industry for fruits and vegetables, improvements are needed for the production stages, processing and marketing.<sup>2</sup> In this study the structure of fresh fruit and vegetables marketing in Turkey will examine and try to make proposals will reduce the marketing margin.

## Supply of fresh fruit and vegetable

The amount of fresh fruit and vegetable production in Turkey was 49.2 million tons in 2016. When examining the total production of fresh fruit and vegetables, it is observed that vegetable production has the highest share. Total production of these crops generally is higher than every individual European country. But in some crops, production is less than that of some European countries such as olive production in Spain.

In Turkey vegetable production has a share of 65-66% in total fresh fruits and vegetables production. As it can be seen on the following table the share of fruit production is 33-35%. The shares of fruits and vegetables in total production have not changed much in current years (Table 1).

## Foreign trade of fresh fruits and vegetables in Turkey

Turkey fresh fruit and vegetable exports as of 2016 are 1.9 billion \$. 76% of this amount is from fruits and 24% is from vegetables (Table 2-4). When January-June 2015 exports of fresh fruits and a vegetable (according to FOB value) is analyzed, it can be seen that with the rate of decline of -18%, tomato is first with 281.3 million

dollars in export value. Tomato is followed by lemon, orange, cherry, sour cherry and mandarin respectively. Decreases in the amount of exports of tomatoes, oranges, cherries and mandarin have caused to a decline of 13% in the total exports in January-June period (Table 5 & Table 6).

**Table 1** Fresh fruit and vegetable productionSource: Turkish statistical institute, 2015<sup>3</sup>

Years	Vegetables Production (mt)	Vegetables Production (%)	Fruit Production (mt)	Fruit Production (%100)	Total Production (mt)	Total Production (%)
2010	25.997.195	65	13.950.034	35	39.947.229	100
2011	27.547.462	66	14.388.128	34	41.935.590	100
2012	27.820.207	65	14.891.130	35	42.711.337	100
2013	28.448.218	65	15.326.786	35	43.775.004	100
2014	28.569.781	67	14.298.402	33	42.868.183	100

**Table 2** Fresh fruit and vegetable exports in Turkey (000 \$)Source: Turkish statistical institute 2015<sup>3</sup>

Item	2014	2016
Fresh Fruit	1.662.658.799	1.481.647,3
Fresh Vegetable	710.183.663	463.348,1
Total	2.393.534.500	1.944.995,4

**Table 3** Production of vegetables (For selected products)Source: Turkish statistical institute, 2015<sup>3</sup>

Years	Tomatoes(tonne)	Cucumbers(tonne)	Melon(tonne)	Water melon(tonne)
2010	10 052 000	1 739 191	1 611 695	3 683 103
2011	11 003 433	1 749 174	1 647 988	3 864 489
2012	11 350 000	1 741 878	1 688 687	4 022 296
2013	11 820 000	1 754 613	1 699 550	3 887 324
2014	11 850 000	1 845 749	1 707 302	3 885 617

**Table 4** Fresh fruit and vegetable exports in Turkey (\$)

Source: Turkish statistical institute, 2015

Item	2013	2014
Fresh Fruit	1.638.827.300	1.662.658.799
Fresh Vegetable	691.838.548	710.183.663
Total	2.348.552.930	2.393.534.500

**Table 5** Turkey fresh fruit and vegetable exportsSource: Uludag exporters association general secretariat, 2015<sup>4</sup>

PRODUCT GROUP	01.01-30.06.2014		01.01-30.06.2015		Increase Decrease (%)		2015 (%)
	KG	FOB USD	KG	FOB USD	KG	FOB USD	
Tomato	469.036.468	344.793.163	384.970.435	281.366.606	-18	-18	28
Lemon	171.607.971	114.159.820	223.892.659	128.656.963	30	13	13
Orange	204.169.757	114.173.878	165.359.602	84.622.865	-19	-26	9
Cherry	30.946.598	99.357.431	34.777.105	69.799.401	12	-30	7
Mandarin	132.520.721	77.952.268	109.583.299	59.450.237	-17	-24	6
Pepper	54.281.818	53.112.206	59.654.913	50.652.592	10	-5	5
Grapefruit	120.412.703	62.415.433	88.191.322	42.712.743	-27	-32	4
Apple	83.876.273	28.372.924	96.929.145	33.845.049	16	19	3
Nar	46.703.621	31.963.039	53.660.561	31.684.799	15	-1	3
Apricot	22.169.535	21.958.809	47.026.625	29.163.979	112	33	3

**Table 6** Fresh fruit and vegetable export in some countriesSource: Uludag exporters association general secretariat, 2015<sup>4</sup>

During January-June 2015 Russian Federation located first in export with 45% share. In the same period Iraq, Germany, Romania and Ukraine followed.

ÜLKE	01.01-30.06.2014		01.01-30.06.2015		Increase Decrease (%)		2015 (%)
	KG	FOB USD	KG	FOB USD	KG	FOB USD	
Russian federation	574.087.225	409.452.507	643.333.794	451.969.203	12	10	45
Iraq	403.203.630	170.034.052	365.524.564	148.407.658	-9	-13	15
Germany	48.042.571	93.812.268	46.458.218	68.313.021	-3	-27	7
Romania	68.972.340	50.186.492	61.557.445	44.552.402	-11	-11	4
Ukraine	112.744.802	67.486.921	47.617.925	29.104.576	-58	-57	3
Bulgaria	88.527.077	54.480.822	58.932.490	26.145.892	-33	-52	3
Saudi arabia	39.327.749	24.701.875	44.936.219	23.776.469	14	-4	2
Georgia	72.401.082	25.211.646	57.481.949	19.238.654	-21	-24	2
Netherlands	23.213.608	24.649.562	15.694.095	17.468.005	-32	-29	2
Syria	20.345.232	6.821.258	40.072.555	12.272.519	97	80	1

## Marketing structure

Marketing services of agricultural products begin with harvesting, collecting, and continue with storage, processing, transportation and finishes by selling to the consumer. A minor amount of some products are prepared in the production field for retailing and end user. A major part of the production is marketed at different levels of the marketing channel. Agricultural products' marketing channels vary according to products, organization level, the country's competitiveness and business policies. There are various marketing systems in the fresh fruit and vegetable trade in the world. Products are delivered to the consumer with a variety of marketing channels by brokers or directly.<sup>5</sup> Some producers choose to deliver their goods to markets through brokers because of shipping costs. Brokers market these products to marketing channels such as retail and wholesale markets and then they are delivered to consumers through markets, supermarkets and grocery stores. In addition, producers can market their products directly to agricultural cooperatives and exporters. Another type of marketing channel can occur when fruits and vegetables are offered to the consumers by agricultural cooperatives. The longest of fresh fruit and vegetables marketing channel in Turkey; "Producer - collector - brokers (production place) - wholesale broker (consumption place) - retailer - consumer".<sup>1</sup> Markets in a traditional marketing system in Turkey; producers, wholesalers and retailers are divided into three basic groups. Producer markets are markets where producers sell their products. The wholesale markets are where collectors buy the products from producers and sell to the processing facilities and large collectors. Retailers markets are sales locations in which the product is purchased by the end consumers.<sup>6</sup> Marketing problems of fruit and vegetables in Turkey can be summarized as follows:

1. Fragmented market structure (in the retail sector)
2. Lack of producer organizations
3. Lack of physical distribution
4. Lack of government attention to the problem
5. Lack of scale economy at the farm level, processing industry level, wholesale level and retail level
6. Lack of consumer voluntary association
7. Lack of legislation of market organizing and price discovery
8. Lack of market information at all level in marketing channel and also export marketing channel.

## Results

In sum, Turkey has a big potential and advantages in fruit and

vegetables sector, although the sector has problems that has been indicated above in both internal and external markets. Fresh fruit and vegetables marketing is very important in agricultural sector and market structure varies depending on the product and country. The lack of strong producers' organizations in Turkey leads to a dependence on brokers. And this situation causes increases in marketing margin. In the agricultural sector in Turkey when producers who try to buy or sell goods directly enter the market, they are confronted with an organized trade and industry sector. Strategies that will increase the efficiency and quality of production must be determined. Marketing infrastructure should be improved. Organizations should be encouraged to provide horizontal and vertical integration. Producers should be informed about fruit and vegetable cultivation techniques and the results of the relevant researches should be communicated to the producers. In addition, producers should be encouraged to organize and the establishment of producers' associations should be supported.

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## Conflict of interest

Author declares that there is no conflict of interest.

## References

1. Akbay C, Candemir S, Orhan E. Türkiye'de Yaş Meyve ve Sebze Ürünleri Üretim ve Pazarlaması. Kahramanmaraş Sutcu imam: *University Journal of Science and Engineering*. 2005;8(2).
2. Yurdakul, O, Emeksiz, F, Şengül S, et al. Tarım Ürünleri İç Ve Dış Pazarlaması. 2015.
3. Turkish Statistical Institute (TurkStat). 2015.
4. Uludag Exporters Association General Secretariat. 2015.
5. Albayrak M. Yaş Meyve ve Sebze Pazarlama Merkezleri: Toptancı Haller-Pazarlar. Dünya, Avrupa Birliği ve Türkiye'den Örneklerle Yapısı ve İşleyışı. 2009.
6. Akpinar GM, Özkan B, Atalay Oral M, et al. Tüketicilerin Yaş Meyve Sebze Tedarik Kanalı Seçimi: Modern (Süper-Hipermarket) Perakendeciler, Akdeniz Üniversitesi Ziraat Fakültesi Dergisi. 2009;22(2):211–221.