



## **Market Conditions and Marketing Issues for Grapevine Sapling Producers**

**Kürşad Durmaz<sup>a,\*</sup>, Esen Oruç<sup>b</sup>, Rüstem Cangı<sup>c</sup>**

<sup>a</sup> Graduate School of Natural and Applied Science, Tokat Gaziosmanpaşa University, Tokat, Turkey

<sup>b</sup> Department of Agricultural Economics, Faculty of Agricultural, Tokat Gaziosmanpaşa University, Tokat, Turkey

<sup>c</sup> Department of Horticulture, Faculty of Agricultural, Tokat Gaziosmanpaşa University, Tokat, Turkey

\*Corresponding author, [esen.orucbuyukbay@gop.edu.tr](mailto:esen.orucbuyukbay@gop.edu.tr)

**ABSTRACT:** The aim of this research is to determine the current market conditions and marketing problems of the grapevine sapling producers. The research was conducted based on the data obtained from the survey study. For this purpose, during the research period, all the enterprises which are members of the Sapling Producers Sub-Union (SPSU) and which have large capacity, both producing and selling saplings were tried to be interviewed. In this way, it was decided that 12 out of 33 enterprises should be interviewed. The data obtained were evaluated and interpreted with percentage distribution tables and descriptive statistics. According to results, it is seen that the enterprises interviewed generally have a wide marketing network. Although the domestic sales network is strong, only 25.00% of the firms stated that they sell abroad. According to the statements of enterprisers, price of grapevine saplings is mostly shaped according to market conditions. On the otherhand, it can be say that the market price of the grapevine sapling carries an imbalance risk in favor of vendor enterprises.

**Keywords:** *Grapevine sapling, Grapevine sapling market, Sapling market conditions, Nursery sector*

### **1. Introduction**

Grape is the most produced fruit as amount in Turkey. It constitutes 24% of fruit production in 2018. The production area for the year is 4 170 410 decares and the production amount is 3 933 000 tons (TSI, 2019). The grapevine leaf, another product obtained from grapevine saplings, is an important product with consumer potential. These two products make grapevine saplings an important production material. Healthy, high quality and sufficient production of grapevine saplings is essential for the continuity of grape and grapevine leaf production in the country.

Turkey shows great changes over the years, the number of grapevine sapling produced in. As total of 18 1330 309 certified grapevine saplings were produced during the five-year period covering 2004-2008. 76.3% of the saplings produced are grafted and 23.7% are ungrafted. The share of public institutions in grapevine sapling production is a symbolic rate (Çelik et.al., 2010). In the 2007-2011 period, 5 093 652 standard category grapevine saplings were produced on average annually, 74% of which were grafted. (Çelik, 2012). The number of grapevine saplings produced in 2016 was also 4 349 560 (Anonymous, 2017a).

As well as the numerical insufficiency and instability of grapevine sapling production in Turkey, the insufficient production of the right to name, healthy and certified vine seedlings is another major problem in producing.

In general it is known that the necessary control in grapevine nursery cannot be done sufficiently. As a result, vineyards are established with poor quality, diseased and wrong rootstocks/varietiescombination combination. Rootstocks and variety disorder in the vineyards, vineyard establishments with inappropriate rootstock causes problems in yield, quality, standardization and product processing. There are similar problems in fruit sapling sector (Aksoy *et al.*, 2004).

In Turkey, including basically, certified and standards in 3 categories, grapevine sapling is produced according to the regulations and instructions prepared in accordance with the dated 31.10.2006 and No.5553 “Seedling Law” and dated 11.06.2010 and No. 5996 “Law on Veterinary Services, Plant Health, Food And Feed”. Based on 6. Article of the Law, dated 25.05.2012 and No. 27277 “Regulation on Marketing With Grapevine Plants and Certification of Production Material” is published in dated 03.07.2009 and No. 28803 The Official Gazette. This regulation has been established in order to ensure that the seedlings and production materials of grapevine species are produced and marketed right to name, quality and healthy manner. According to this regulation, which is adapted from EPPO certification scheme, production and marketing system is still applied (Anonymous, 2017 b).

While the production of vine seedlings was carried out by official institutions at first, it has been done by private sector in recent years. These enterprises that produce grapevine saplings are members of (Sapling Producers Sub-Union, SPSU), a public non-governmental organization working on fruit and grapevine sapling production. The aim of the Union is to produce right to name and accurate certified materials for all member organizations producing sapling within the borders of the country and to develop vineyards and gardens. Target in terms of grapevine nursery is to provide the material necessary for the certificated minimum 10 000 000 sapling production which are Turkey’s demand.

In the grapevine nursery sector, it is important that the firms producing and selling high quality, consistent and in compliance with legal regulations gain power and increase numerically. However, the unique challenges of this field of activity make the development of the sector difficult. For this reason, To reveal the problems of firms operating in the sector and to seek solutions these problems have great importance. One of the main problems for firms in the sector is marketing conditions. Previous studies point out problems related to this issue. It is mentioned that it is too late to establish a healthy grapevine / fruit sapling certification system, which limits the potential of foreign sales in particular. Informal marketing is another important problem of the sector. (Savaş, 2013).

Saydam (2010) puts forward that problems faced by fruit sapling producers during marketing are certificate, variety, not using the desired rootstock, the size of the sapling, saplings branching shape, weak root development, transport, collection, lack of new markets, the buyer’s unconscious, discontinuity of demand, difficulty of place in city markets.

The aim of this study is to introduce on market conditions and marketing problems of enterprises producing grapevine sapling Sapling Producers Sub-Union members in Turkey and to present solutions to these problems.

## **2. Material and Methods**

The main material of this research are the data obtained from surveys with 12 grapevine sapling producer enterprises which are members to Turkey Sapling Producers Sub Union in

2015. 12 enterprises which have the largest share of the grapevine sapling production and sales during research period were included to survey.

Because enterprises producing and selling vine seedling in Turkey obligated to be member of Sapling Producers Sub Union (SPSU), the records of this organization were used to determine the main population of the research.

During the research period, there were 33 SPSU members. It was decided that all of the enterprises with large capacity, both producing and selling sapling, should be interviewed and 12 of 33 enterprises should be interviewed. The distribution of enterprises by provinces is Manisa 4, Tokat 3, Bilecik 1, Istanbul 1, Denizli 1, Bursa 1 and Şanlıurfa 1.

Surveys were conducted with mutual negotiations. The data obtained from the survey were transferred to the appropriate program in digital and evaluated with descriptive statistics and the results were interpreted.

### 3. Results and Discussion

Producers were average 46,69 age, mostly male (%83.33) and predominantly graduate degree (%58.33). The Rates of primary school, secondary/high school and associate graduates was the same (%8.33). The rate of master's degree enterprisers was %16.67.

The average land size that the enterprises produce is determined as 222 decares. The rate of enterprises producing on land less than 50 decares is an important level with 41.67%. 66.67% of the enterprises produce only grapevine saplings, while 33.33% of enterprises produce grapevine and fruit saplings together.

All of the interviewed enterprises produce bare-rooted grapevine saplings. In addition, 58.33% of enterprises potted and 25% of them produce the American vine sapling. Only one firm produces domestic grapevine saplings. As average, 337.040 saplings are produced annually in the enterprises. It is seen that table grapes are preferred more than the wine and raisin varieties.

It was tried to put forward the situation in this issue with the questions asked about the conditions and methods of marketing the saplings produced by the enterprises.

The results related to packaging applications are given in Table 1. 66.67% of the enterprises are packing grapevine saplings during sale stage. The majority of the packaging enterprises (75%) prefer full size packaging.

**Table 1.** Packaging applications during sale stage

		Frequency	Rate (%)
Saplings during sales;	Packaged	8	66.67
	Not packaged	4	33.33
	Total	12	100.00
Packing preference	Half size packing	2	25.00
	Full size packing	6	75.00
	Total	8	100.00

Savaş (2013), in his research, determined that only seven of the 31 interviewed enterprises made packaging for the saplings, and the remaining 24 enterprises offered to sell saplings without packaging.

Some data regarding the sale of grapevine sapling of enterprises are given in Table 2. The majority of the enterprises (75.00%) make both wholesale and retail sales in sapling marketing.

The majority of the interviewed enterprises (83.34%) get the payments of the saplings the cash or installment. 16.62% of the enterprises sell only cash.

It is clear that it would be a more professional approach for enterprises managers to conduct market research before marketing saplings. According to the determination, the majority of the enterprises (75.00%) are conducting pre-sales market research. However, 25% of the enterprise sells saplings without conducting market research.

It was tried to determine the marketing stages of the saplings until it reached to end user. The results show that enterprisers can often reach directly to the customer in the user state. 33.34% of the enterprises also sell through the dealers selling agricultural inputs.

There are no firm selling through the cooperatives or any other intermediary. Saydam (2010) in his research on fruit nursery in Bademli determined that 48.28% of the cooperative members made sales through cooperative, 46.55% of them through customers' demand and 5.17% of them also through dealers market saplings.

More than half a portion of the enterprise (58.33%) stated that they sell to every region of Turkey. It can be seen as an important advantage that these enterprises have a large scale marketing opportunity. In addition, as indicated in the method section, this finding indicates that the interviewed enterprises are strong in the production and sale of grapevine saplings. In addition to this, a firm has a wide marketing area including Mediterranean, Maramara and Aegean Regions. One of the firms stated that it was marketing in the Thrace Region. The narrowest area as a marketing region is Tokat, Amasya and Çorum. The rate of the firms selling to this area is 25.00%. It is seen that the enterprises interviewed generally have a wide marketing network (Table 2).

Although the domestic sales network is strong, the number of firms selling abroad is quite low. Only 25.00% of the firms stated that they sell abroad (Table 2). When the enterprisers were asked about the countries which have the potential for the export of grapevine saplings, Turkic republics and Balkan countries were mentioned as suitable markets.

How the market price is formed for any product, it has great importance in terms of sustainability of production and protections of producer and the user or consumer.

The protection of the interests of both the producer and the consumer or the user is closely related to balanced price formations. The enterprises interviewed were asked how is formed the price in the market where grapevine saplings were purchased and sold. The responses of the enterprises show that there is not a very predominant or distorting force in determining the price of grapevine saplings. According to the statements of enterprisers, it is mostly shaped according to market conditions. Although this is not a very clear statement, the impression is that enterprises take each other into consideration in terms of prices and that

they don't go far when a price level starts to form. It is seen that some enterprises (58.33%) determine prices according to cost. It can be thought that these firms are pioneers in the price formed in the market. During the interviews, the firms stated that they took into consideration the price set by other firms.

**Table 2.** Grapevine sapling marketing conditions of enterprises

		Frequency	Rate (%)
Sales in terms of quantity	Wholesale	1	8.33
	Retail	2	16.67
	Both	9	75.00
	Total	12	100.00
Method of receipt of sales price	Cash	2	16.66
	Installment	-	-
	Both	10	83.34
	Total	12	100.00
Pre-sales a market research	Conducting	9	75.00
	Not conducting	3	25.00
	Total	12	100.00
Used marketing channels	Direct to customer (user)	8	66.67
	To customer + via input dealers	4	33.33
	Total	12	100.00
Sales regions	All region in country	7	58.33
	Thrace region	1	8.33
	Mediterranean+Marmara+Aegean	1	8.33
	Tokat+Amasya+Corum	3	25.00
	Total	12	100.00
Sale of saplings abroad (Export)	Sold	3	25.00
	Didn't sell	9	75.00
	Total	12	100.00
Sales price determination method	Determined according to market conditions	11	91.66
	According to supply and demand	8	66.66
	Determined according to cost by enterprise	7	58.33
	Determined according to tender conditions	4	33.33
	Total	12	*

\* Some enterprisers use more than one answer to these questions, so the total exceeds one hundred.

It can also be understood from the findings that the enterprises interviewed sold grapevine saplings in more than one price formation. Firms selling through tenders can also sell according to the price created by the tender conditions. During the interviews, it is understood that the prices, which can be reduced considerably, especially in large public tenders, can be sold at several times when appropriate market conditions or buyers are found (Table 2).

Another point that draws attention to the price formation is that although the enterprises interviewed may be partly effective on the price as the sapling party, the producers receiving the grapevine sapling as the user have almost no effect. This may be attributed to the large number of producers of grapevine saplings, although the number of enterprises growing and selling grapevine saplings is limited. In this respect, it can be thought that the market price of the grapevine sapling carries an imbalance risk in favor of vendor enterprises.

Saydam (2010) reported that fruit sapling prices are determined according to supply-demand and market. Savaş (2013) stated that the cost of saplings, the prices determined by other

saplings and the intensity of demand for the saplings were effective in determining the sale price of grapevine saplings.

Only one firm stated that it was able to sell all of the saplings. 91.66% of the enterprises stated that they could not sell all the saplings in some years. Some enterprises take the remaining saplings into flower pots + plastic pots (25.00%), some of them leave the remaining sapling their places (25.00%). Solutions such as planting in their own vineyards, putting in cold storage, granting to workers to remaining saplings are also applied at lower rates (Table 3).

**Table 3.** Evaluation method of saplings that enterprises can not sell

	Frequency	Rate (%)	
Solutions for unsold saplings	Carried into flower pots + plastic pots	3	25.00
	It stays where it is and gets planting again	3	25.00
	Not turned to account	2	16.66
	All of them sold, no remaining	1	8.33
	Planting in his own vineyards	1	8.33
	Putting into cold storage	1	8.33
	Granted to workers	1	8.33
	Total	12	100.00

It has been determined what kind of problems the enterprises have experienced during the marketing stage of grapevine sapling production. The issue which was mentioned as a problem by the enterprises with 75.00% was the low sapling prices. Complaints about the low price indicate that these enterprises, which are understood to have a large share in the market, are limiting factors in price determination. This can be considered as a favorable situation for the grapevine sapling market where the number of sellers is limited and the number of buyers is too high for a buyer to affect the market (Table 4).

In terms of marketing, transportation and storage problems took the second place with 25.00%. Transportation is provided directly hand delivery, warehouse or cargo. Hand delivery is known as the most unproblematic method. Warehouse method is the method in which bare-rooted saplings are transported in cardboard boxes or plastic bags according to the preference of the firm in selling large quantities of products. In this method, during the transportation may occur dryness on the roots of the saplings or breakage on the stem. It is stated that the cargo is used for the delivery of small quantities of products. According to the statements of the enterprisers, breakings are very common in this method. While this is the case for bare-rooted saplings, it is stated that transportation in potted saplings has become a problem. Potted saplings are considered to be disadvantageous in terms of the area they cover and transportation labor.

Protection problem is stated to be more valid for bare-rooted saplings. It is stated that the increase the outage rate of the saplings which are not maintained well until the sale and that are not taken into the storage or sand pond increases the cost and makes the sale difficult (Table 4).

In addition, the rootstock issue, the certificate issue and variety issue are some other problems mentioned. The firms that expressed the rootstock and variety problem stated that there is a price difference according to rootstock and variety. 25.00% of the enterprises stated that they did not have a problem about marketing (Table 4).

**Table 4.** Problems faced by enterprises in grapevine sapling marketing

		Frequency	Rate (%)
Problems	Low sapling prices	9	75.00
	Transportation issue	3	25.00
	Protection issue	3	25.00
	Rootstock issue	2	16.66
	Certificate issue	1	8.33
	Variety issue	1	8.33
	Not having any problems	3	25.00
	General	12	*
Persons or organizations provided assistance about marketing	Brokers	4	33.33
	Other producers	3	25.00
	Units of Ministry of Agriculture	3	25.00
	Not receiving help	8	66.67
	Total	12	*

\* Some enterprisers use more than one answer to these questions, so the total exceeds one hundred.

33.33% of the enterprises stated that they received assistance from the brokers, other producers and the units of Ministry of Agriculture in marketing. The majority of the enterprises stated that they did not receive any marketing assistance (66.67%). This situation can be related to the fact that the enterprises are strong in marketing (Table 4).

The most common complaint regarding the saplings sold is about survival ratio and dryness. 45.45% of the enterprises stated that they received this complaint from customers. The rate of enterprises receiving complaints about sapling lengths is 33.33%. When there is negative feedback, the majority of the enterprises (75.00%) try to compensate by giving new saplings. One of the enterprisers has stated that they offer a solution by making a repayment. Some of the firms that state that they do not offer any solution, sometimes some of them are always in this attitude (Table 5).

**Table 5.** Negative feedbacks about saplings sold

		Frequency	Rate (%)
Negative feedback issues	Survival ratio and dryness	5	45.45
	Sapling lengths	3	25.00
	No waking up	1	8.33
	No negative feedback	2	16.66
	Total	12	100.00
When there is negative feedback attitude of enterprisers	Giving new saplings	9	75.00
	Making a repayment	1	8.33
	Does not offer any solution	5	45.45
	Total	12	*

\* Some enterprisers use more than one answer to these questions, so the total exceeds one hundred.

The expectations of the enterprises from the Ministry of Agriculture and Forestry, Universities and Sapling Producers Sub-Union have also been determined. An important part of the results related to expectations also points to marketing problems. The highest rated expectations (25%) of the enterprises from the Ministry of Agriculture and Forestry are the supply of breeding cutting (Table 6). It is known that in Turkey nursery industry, the production and sale of illegal or pirated is a major problem. This situation causes the firms to be exposed to unfair competition conditions, complicates the sale of saplings and leads to

situations below the cost. It is very important that this problem is solved with the obligation to register with the Union. However, it is observed that there is a very limited level of success in this field and there are many illegal sapling producers that make commercial profit.

Enterprises complain about low sapling costs (Table 4). From 2005 until 2016, producers, established vineyard, have profited from “Support of Certificated Sapling/Seedling and Standart Sapling Use” payed within the scope “Support Payment to Plant Production” by the Ministry of Agriculture and Forestry General Directorate of Plant Production. This support provided in vineyard facilities was abolished in 2017 with the decision of the Council of Ministers for various reasons. This situation will also indirectly affect the nursery sector.

33.33% of enterprises stated that they do not have any expectation from the university. The enterprises’ managers expressed expectations such as Research and Development studies (25%), new varieties (16.66%), training companies (16.66%) and producer-industrial cooperation in the field of vine sapling production. The primary expectation from Sapling Production Sub-Union (SPSU) was the struggle against illegal sapling production and this expectation was majority expectation (83.33 %) expressed by enterprises’ managers. 50 % of the enterprisers about marketing, 25 % of the enterprisers about education and technical issues and 16.66 % of enterprises about breeding and new varieties expect the support of Sapling Production Sub-Union

The rate of enterprises who stated that they did not receive help from SPSU was 41.67%. It is understood that the enterprisers need to express their expectations and complaints about the SPSU.

**Table 6.** Expectations of enterprises’ managers

<b>The expectations from the Ministry of Agriculture and Forestry</b>	<b>Frequency</b>	<b>Rate (%)</b>
Supply of cutting with favorable conditions	3	25.00
Contol of producer firms	2	16.66
Cancellation of production documents if necessary	2	16.66
Reorganization of regulations	2	16.66
Providing support in sapling production	2	16.66
No expectations	1	8.33
Total	12	100.00
<b>The expectations from universities</b>	<b>Frequency</b>	<b>Rate (%)</b>
R & D studies	3	25.00
Variety development studies	2	16.66
Training for producer firms	2	16.66
Industry cooperation	1	8.33
No expectations	4	33.33
Total	12	100.00
<b>The expectations from SPSU</b>	<b>Frequency</b>	<b>Rate (%)</b>
Struggle against illegal saplings	10	83.33
Marketing assistance	6	50.00
Training and technical support	3	25.00
Breeding and new variety support	2	16.67
No expectation because it doesn't benefit	5	41.67
General	12	*

\* Some enterprisers use more than one answer to these questions, so the total exceeds one hundred.



## 4. Conclusion

With this research, we have tried to put forward the marketing profiles 12 firms producing grapevine sapling SPSU members in Turkey.

During the interviews, it was understood that most of the grapevine saplings were sold in the regions where commercial grapevine growing was done. Enterprises usually sell seedlings both wholesale and retail. The cash and installment alternatives are used together in payments. It is seen that market conditions at the time of sale are more effective than a regular system in marketing. Price formation also appears to be far from a standard practice. Enterprisers can be effective in price, but they are not decisive. It is seen that price is affected by different factors in the market. The owners of enterprise say that the price of the saplings is usually determined by the market conditions.

75.00% of the enterprises stated that they had problems in marketing saplings. Low price is the first problem. There are also enterprisers that have difficulty in storage and transportation.

Enterprises may receive negative feedback about the saplings they sell. The most common complaint is survival ratio and dryness of saplings. A large number of businesses compensate their customers by giving saplings to avoid losing customers.

The enterprises requested the Ministry of Agriculture and Forestry to increase the controls to obtain the right to name plant material and protect the rights of certified producers in the sector. They stated that they expect assistance from SPSU especially in combating and marketing illegal nursery enterprises.

As a result, it is seen that grapevine sapling producers should be more closely coordinated in terms of solving common problems. It is important to control the production of non-certified saplings that cause unfair competition in the grapevine sapling market. In terms of healthy and balanced price formation, the participation of new enterprises to the sapling sector should be encouraged. Existing plants that do not compromise about healthy and high quality grapevine saplings should be supported. One of the most important supports in this regard is an effective control mechanism. The production of certified and the right to name sapling should be encouraged and the system should be made more transparent by raising the awareness of the producers.

Marketing should be brought to a more professional point in the enterprises. Some of the firms make packaging, do not have any problems in marketing and provide solutions to buyers' feedback. However, it is seemed necessary to establish an expert marketing approach in all enterprises. Thus, a more balanced competition can be achieved among the enterprises in the sector.

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