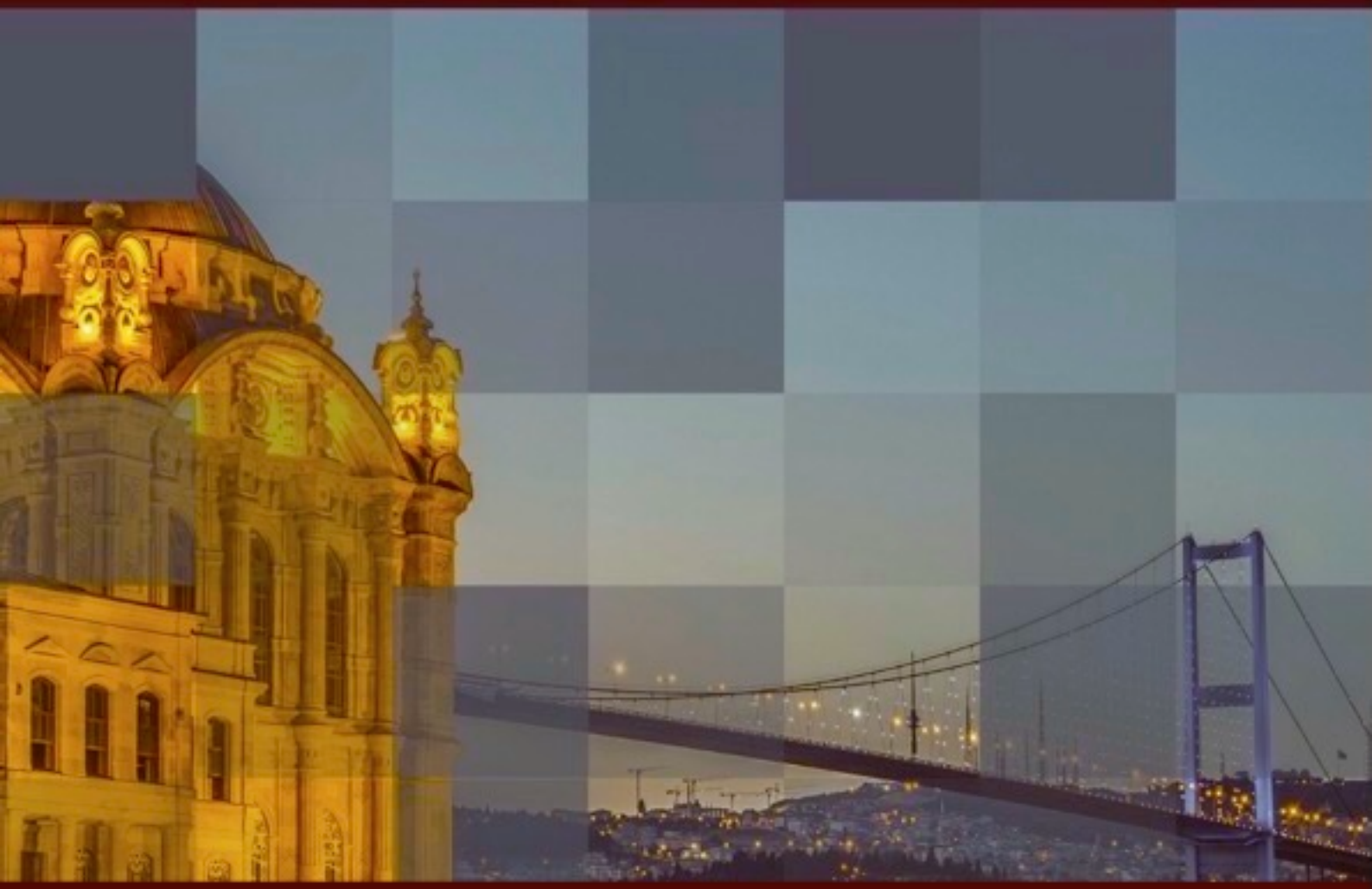

10. ULUSLARARARASI MARMARA BİLİMSEL ARAŞTIRMALAR VE İNOVASYON KONGRESİ

27-28 HAZİRAN 2025

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Editörler:

Prof. Dr. Seval Sevgi KIRDAR

Dr. Emrah SEÇER

Dr. İlkin BAŞAR

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KAHRAMANMARAŞ İLİ ELBİSTAN İLÇESİNDE KAYISI ÜRETİM VE PAZARLAMASINI ETKİLEYEN FAKTÖRLER VE SWOT ANALİZİ

Gamze AYDOĞAN
Tokat Gaziosmanpasa University, Faculty of Agriculture, Department of Agricultural Economics, 60250 Tokat
ORCID:0009-0003-5058-8447
Gülistan ERDAL
Tokat Gaziosmanpasa University, Graduate School of Natural and Applied Sciences, Department of Agricultural Economics, 60250 Tokat
ORCID: 0000-0003-0227-3013

ÖZET

2020 yılında dünyada toplam 887 milyon ton meyve üretilmiştir. Bu üretimin 3,7 milyon tonu (%0,41) kayısıya aittir. Türkiye, dünya kayısı üretiminde lider konumdadır ve 2020 verilerine göre 833 bin ton üretimle ilk sırada yer almaktadır. Türkiye, dünya toplam kayısı üretiminin önemli bir kısmını karşılamaktadır. Türkiye'nin kayısı üretim alanı 132 bin hektar olup bu, dünya toplam kayısı alanının %0,20'sini oluşturmaktadır. Kayısı üretimi, Türkiye ekonomisi açısından önemli bir yere sahiptir. Ülkemizde kayısı üretiminde en önde gelen şehir Malatya'dır; Türkiye toplam kayısı üretiminin %37,8'i bu ilden karşılanmaktadır. Malatya'yı sırasıyla %20,5 ile Mersin, %7,1 ile Hatay, %6,7 ile Kahramanmaraş ve %5,1 ile Iğdır izlemektedir. Türkiye'de toplam kayısı üretim alanı 1,42 milyon dekar olup, bu alanların %61,9'u Malatya'dadır. Bunun dışında Elazığ, Kahramanmaraş, Mersin ve Iğdır da kayısı üretiminde önemli paylara sahiptir.Bu araştırma, Kahramanmaraş İli Elbistan İlçesi'nde kayısı üretim ve pazarlama süreçlerini analiz etmeyi amaçlamaktadır. Türkiye, dünya kayısı üretiminde lider olmasına rağmen, Elbistan ilçesi üzerine yapılan çalışmalar oldukça sınırlıdır. Bu proje, Elbistan'ın kayısı üretim potansiyelini, üretim süreçlerindeki sorunları ve pazarlama yapısını inceleyerek literatürdeki bu önemli boşluğu doldurmayı hedeflemektedir.Proje kapsamında, kayısı üretiminin yoğun olduğu mahallelerde (Keçemağara, Uncular, Gökçek ve Büyük Yapalak) toplam 90 çiftçiyle yüz yüze anket yapılacaktır. Bu anketlerle, üreticilerin sosyo-ekonomik yapıları, üretim süreçlerinde karşılaştıkları sorunlar ve pazarlama stratejileri belirlenecektir. Anket sonuçları SPSS paket programı ile analiz edilecek ve istatistiksel anlamlılık için Ki-kare testi uygulanacaktır. Ayrıca, bölgedeki kayısı üretiminin güçlü ve zayıf yönleri ile fırsat ve tehditleri belirlemek amacıyla SWOT analizi yapılacaktır.Araştırma sonucunda elde edilen veriler doğrultusunda, kayısı üreticilerinin karşılaştığı sorunlara çözüm önerileri geliştirilecek ve üretim/pazarlama süreçlerini iyileştirecek stratejik planlar oluşturulacaktır. Bu bulgular, bölgesel kalkınmaya katkı sağlayacak ve yerel tarım politikaları

için önemli bir rehber niteliğinde olacaktır. Ayrıca araştırma sonuçları, akademik yayınlar ve raporlar şeklinde sunularak bilimsel literatüre katkı sağlayacaktır

Anahtar Kelimeler: Kayısı,Üretim, SWOT analizi, Elbistan,

SWOT ANALYSİS AND FACTORS INFLUENCİNG APRİCOT PRODUCTİON AND MARKETİNG İN ELBİSTAN, KAHRAMANMARAŞ

ABSTRACT

In 2020, a total of 887 million tons of fruit were produced worldwide. Of this amount, 3.7 million tons (0.41%) consisted of apricots. Turkey ranks first in global apricot production, with 833 thousand tons produced in 2020, thus covering a significant portion of the world's total apricot output. Turkey's apricot cultivation area is 132,000 hectares, representing 0.20% of the global apricot cultivation area. Apricot production holds substantial economic importance for Turkey. The leading province in apricot production is Malatya, accounting for 37.8% of Turkey's total apricot output. Malatya is followed by Mersin (20.5%), Hatay (7.1%), Kahramanmaraş (6.7%), and Iğdır (5.1%). The total apricot cultivation area in Turkey is 1.42 million decares, of which 61.9% is located in Malatya. Additionally, Elazığ, Kahramanmaraş, Mersin, and Iğdır also play important roles in apricot production.

This study aims to analyze the apricot production and marketing processes in Elbistan District of Kahramanmaraş Province. Although Turkey is the world leader in apricot production, studies focusing on Elbistan's apricot industry are quite limited. This project aims to fill this gap in the literature by identifying Elbistan's production potential, challenges in production processes, and marketing structure.

As part of the project, face-to-face surveys will be conducted with 90 farmers in neighborhoods where apricot production is concentrated (Keçemağara, Uncular, Gökçek, and Büyük Yapalak). These surveys will gather information on farmers' socio-economic characteristics, the challenges they face during production, and their marketing strategies. Survey results will be analyzed using the SPSS software, and the Chi-square test will be applied to determine statistical significance. Additionally, a SWOT analysis will be conducted to identify the strengths, weaknesses, opportunities, and threats in regional apricot production.

Based on the findings, solution proposals will be developed to address the problems faced by apricot producers, and strategic plans will be created to improve production and marketing processes. These outcomes will serve as a significant guide for regional development and contribute to local agricultural policies. Moreover, the results of the research will be presented as academic publications and reports, thus contributing to the scientific literature.

Keywords: Apricot, Production, SWOT Analysis, Elbistan

INTRODUCTION

Apricot (Prunus armeniaca) belongs to the Rosaceae family and includes numerous species and varieties grown under various climatic conditions around the world (Başar, 2016). In 2023, a total of 951 million tons of fruit were produced globally. Of this amount, 3.7 million tons were apricot production. With 750 thousand tons of apricot production, Turkey ranks first in the world, meeting 20.27% of global apricot production. The total apricot cultivation 56area in the world is 681 thousand hectares, and 144 thousand hectares of this area are located in Turkey (FAO, 2023).

Map 1. Distribution of Apricot Orchard Areas in Turkey by Provinces (TURKSTAT, 2024)

Map 2. Distribution of Apricot Production Amounts in Turkey by Provinces (TURKSTAT, 2024)

According to TURKSTAT (2024), approximately 98% of the apricot production in Kahramanmaraş Province is realized in the Elbistan District. The Elbistan Plain, recognized as the fourth largest plain in Turkey, demonstrates high productivity not only in various major agricultural products but also in apricot cultivation. Of the total 2,546,530 decares of land in the district, 1,025,518 decares are classified as agricultural land, of which 108,000 decares are allocated specifically for apricot orchards. In 2024, Elbistan recorded a production volume of 45,000 tons of apricots.Situated within the hinterland of Malatya apricot production, Elbistan contributes significantly to the sector with an annual yield of 45,000 tons of fresh apricots and 20,000 tons of dried apricots. Apricot cultivation constitutes a vital component of the local economy, and the planned establishment of an Apricot Processing and Packaging Facility under the coordination of the Elbistan District Governorship (2024) underscores the strategic importance attributed to apricot production in the region.

MATERIAL AND METHODS

Collection and preparation

There are 9 neighborhoods in Elbistan district of Kahramanmaraş province where apricot production takes place. Among these neighborhoods, those with intensive production and the number of producers have been identified. A total of 455 producers located in 4 neighborhoods constitute the population of the study. In the study, 20% of the producers were considered, and a face-to-face survey was conducted with 91 producers on a voluntary basis. The neighborhoods where the survey was conducted and the number of surveys per neighborhood are given in Table 1.

Table 1. Distribution of neighborhoods where surveys were conducted and the number of surveys

Town/Neighborhoods	**Number of Producers (Units)**	**Number of Surveys to be Conducted (Units)**
Keçemağara	90	18
Uncular	104	21
Gökçek	180	36
Büyük Yapalak	81	16
	455	91

The survey data obtained in the study were analyzed using the SPSS software package.

Based on the obtained data set, producers interviewed in the study were grouped accordingly. To assess the statistical significance of the relationship between selected social and economic factors and the apricot production and marketing status for some proportionally presented research findings, the Chi-square test was conducted.

Furthermore, a SWOT analysis was performed to identify the strengths, weaknesses, opportunities, and threats related to apricot production from the producers' perspective, aiming to inform the development of strategic plans and policies for enhancing apricot production in the region.

2.2. ANALYSIS TECHNIQUE

RESULTS AND DISCUSSION

Table 2. General information about the operator and the business

General information about the grower and the business		General
Age	(Year Average)	49.6
Gender (%)	Male	94.5
	Woman	5.5
Education level (%)	Primary education	30.8
	Secondary Education	39.6
	High school	24.2
	Licence	5.5
Profession (%)	Farmer	36.3
	Thermal power plant	26.4
	Retired	22.0
	Officer	8.8
	Small business	5.5
	Housewife	1.1
Social security	There is	86.8
	None	13.2
	If yes, SSI	63.7
	If there is BAGKUR	23.1
Permanent place of residence	Village – neighborhood	52.5
	District center	41.8

	City center	1.1
	Out of province	4.4

The average age of the individuals participating in the study was 49.6 years, and the sample generally represents the middle-aged group.

While 94.5% of the individuals participating in the study were male, female representation was only 5.5%. This unbalanced gender distribution shows that the sample has a limited representative power in terms of gender equality.

The majority of individuals participating in the study have primary and secondary education (30.8% and 39.6%). The proportion of individuals with undergraduate education is quite low (5.5%). This distribution shows that the sample has a limited representative power in terms of education level.

The majority of individuals participating in the study were identified as **farmers** (36.3%) and **thermal power plant workers** (26.4%). Other occupational groups are represented at lower rates, especially **retired** (22.0%) and **civil servant** (8.8%) groups. This distribution shows that the sample is largely concentrated in the agricultural and industrial sectors.

It was determined that 86.8% of the individuals participating in the study had **social security** , **while 13.2% did not have social security . The vast majority of those with social security were covered by SGK** (63.7%), while the rest were insured by **BAĞKUR** (23.1%). This shows that the majority of the sample had state-supported social security, but the proportion of individuals registered with BAĞKUR was relatively low.

52.5% of the individuals participating in the study reside **in a village or neighborhood** , **41.8% in a district center** , **1.1% in a city center ,** and **4.4% outside the city** . This shows that the majority of the sample lives in rural areas and areas close to districts, while there is a low representation in city centers.

TABLE 3. Monthly income

Monthly Income	%	Frequency
20000-30000	6.6	6
31000-50000	9.9	9
51000-80000	34.1	31
81000> above	49.5	45
Non-agricultural sector	%	Frequency
Yes	62.6	57
No	37,	34
Non-farm income	%	Frequency
10000-20000	22	20
30000-45000	25.3	23
46000-60000	14.3	13
61000> above	1.1	1
Agricultural income	%	Frequency
10000-25000	17.6	16
26000-45000	16.5	15
46000-65000	19	20.9
6500> above	45.1	41

6.6% of the individuals participating in the study earn an income between 20,000-30,000 TL , 9.9% earn an income between 31,000-50,000 TL and 34.1% earn an income between 51,000-80,000 TL . This shows that the majority of the participants earn a medium income and the high income group has a lower rate.

62.6% of individuals participating in the survey work in non-agricultural sectors .

22% of the individuals participating in the research earn non-agricultural income of 10,000-20,000 TL , 25.3% earn 30,000-45,000 TL , 14.3% earn 46,000-60,000 TL , and 1.1% earn 61,000 TL and above.

17.6% of the individuals participating in the research earn an agricultural income of 10,000-25,000 TL , 16.5% earn 26,000-45,000 TL , 19% earn 46,000-65,000 TL , and 45.1% earn 65,000 TL and above .

Table 4. Years of cultivation of the operator (%)

Cultivation period (years)	General	Frequency
5-10	5.5	5
10-20	25.3	23
20-30	26.4	24
30-over	42.9	39

5.5% of the individuals participating in the study have been engaged in breeding for 5-10 years , 25.3% for 10-20 years , 26.4% for 20-30 years , and 42.9% for 30 years or more . This distribution shows that the vast majority of participants have been engaged in breeding for many years.

Table 4. Land assets and use of the enterprise (%)

Land assets and use of the enterprise	General
Total land area (da)	82.5
Property (also)	61.2
Rent(on)	13.8
Partner (too)	12.7
Total apricot area (da)	50.5
Total apricot trees	681.3
Total apricot trees	694.6

Average total land area of the enterprises participating in the research It is 82.5 , of which 61.2% is property , 13.8% is rental , and 12.7% is common land. Average apricot area The average number of apricot trees is 50.5 da 681.3 . These data show that enterprises mostly own their own land, but rental and common lands also take an important place.

Table 5. Varieties used by the producer (%)

Type used	General	Frequency
Hacihalil	100	91
Kabaashi	69.2	63
Hasanbey	63.7	58
Onion man	47.3	43
Shekerpare	44	40
Idiot	37.4	34
Alyanak	28.6	26
Other*	3.3	3

* Cataloglu

100% of the businesses participating in the research use the Hacıhalil variety. The usage rates of other varieties were determined as Kabaaşı (69.2%) , Hasanbey (63.7%) , Soğancı (47.3%) , Şekerpare (44%) , Şalak (37.4%) , Alyanak (28.6%) and Ötesi (3.3%) , respectively. These data show that the Hacıhalil variety is the most commonly used variety and the usage rates of other varieties are lower.

Table 7. Factors to be considered in sapling selection (%)

Factors to consider when selecting saplings	General	Frequency
Being certified	93.4	85
Age of the sapling	98.9	90
The body is well-formed, smooth and the eyes are wellformed.	96.7	88
The graft site is closed and the roots have plenty of hairy roots.	95.6	87
The trunk and roots are not injured or bruised.	96.7	88
Free from diseases and pests	98.9	90

98.9% of the individuals participating in the study pay attention to whether the sapling is free from diseases and pests , 98.9% to the age of the sapling , 96.7% to the trunk being mature and smooth, and to the buds being well-formed , 95.6% to the grafting site being closed and the

roots having plenty of fringes , and 96.7% to the trunk and roots not being injured or bruised . In addition, 93.4% prefer certified saplings . This data shows that great importance is given to quality and healthy characteristics in sapling selection.

Table 8. Whether or not to re-establish an apricot garden (%)

	General	Frequency
Yes	74.7	68
No	25.3	23

74.7% of the individuals participating in the research preferred to establish a facility again , while 25.3% expressed a negative opinion about establishing a facility . This finding shows that the vast majority of participants have a positive tendency towards establishing a facility, but still a certain percentage have concerns or negative attitudes about the process of establishing a facility.

Table 11. Diseases and pests that affect the business the most (%)

Diseases and pests	General	Frequency
Monilial disease	95.6	87
Leaf piercing (Freckle-red spot)	93.4	8
		5
Shoot and branch blight	2.2	2
Gum disease	69.2	63
Apaflexia (dying backwards)	44	40
Sunburn on fruit, stem, branches and leaves	75.8	69
Root rot	70.3	64
Sharqa virus	11	10
Aphids	23.1	21
Sapling bottom worms	27.5	25

Apple worm	61.5	56
Leaf bending	70.3	64
Dried fruit moth	41.8	38
Sour Beetle	2.2	2
Dried fruit mite	56	51

According to the research results, the diseases and pests that most affect the enterprises were determined as Monilya disease (95.6%) and Leaf borer (Freck-red spot) (93.4%) . These diseases cause great losses especially in apricot production. While gum disease (69.2%) and sunburn (75.8%) also have significant effects, diseases such as root rot (70.3%) and leaf curling (70.3%) cause yield losses. Pests such as Sharka virus (11%) and Aphids (23.1%) are less common and generally show low levels of effect. These findings show that fungal diseases and environmental factors play a role as the biggest challenges for apricot producers .

Table 12. Apricot orchard irrigation status (%)

Irrigation status	General	Frequency
Yes	100	91
No	0	0

100% of all enterprises participating in the research are irrigating , which shows that the enterprises are generally very sensitive about irrigation and continue their agricultural activities regularly. There is no enterprise that is not irrigated. This is an indication of the importance of irrigation in the production process and that it is an indispensable element for agricultural productivity.

	General
How many times is the average watered (per year)	7,8022

The businesses participating in the research irrigate an average of 7.8 times a year . This shows that irrigation is carried out in a regular and planned manner.

Table 13. Farm harvesting method (%)

Methods	General	Frequency
Hand	73.6	67
Shaking tree branches	78	71
Hitting branches with long sticks	74.7	68
Machine harvesting	82	82

According to the research results, the most commonly used harvesting method among the enterprises is mechanized harvesting (82%) , followed by shaking tree branches (78%) and hitting branches with long sticks (74.7%) . Manual harvesting, on the other hand , is used by 73.6% , representing a more manual approach. These data show that enterprises are turning to mechanized and mechanical methods in order to increase efficiency, but traditional methods are still widely used.

Table 14. Expenses of the business (%)

Transactions performed during the establishment period	General (TL)
Soil tillage and planting	21461.4
Care	63791.1
Various inputs	46782.4
Total cost	130 460.4
Production period cost element	General (TL,da)
Care	63 648.35
Fertilizer	49 076.2
Medicine	47 681.2
Irrigation	77043.6
Workmanship	218230.7
Storage	78.5
Drying	199 065.9

Other variable costs	269 725.3
Total cost	500 587.1

According to the research findings, a significant portion of the installation period and production period expenses are spent on maintenance, labor and various inputs. While the total installation period expenses are 130,460.4 TL , the production period expenses are calculated as 500,587.1 TL . This situation shows that especially the high expenses in the production period are due to functions such as labor , irrigation and drying .

of labor costs shows that a production process based on labor is ongoing and that this has a significant

impact on the total cost. In addition, other variable costs and expenditures on inputs such as fertilizers constitute a large part of the investments made to increase efficiency and are important for ensuring the sustainability of the production process. These findings reveal that effective management of the cost structure of businesses is critical for efficiency and profitability in the long term.

Table 15. Apricot price per unit in enterprises

	General				
Product produced	Total production amount(kg)	Domestic consumption amount (kg)	Amount of product sold (kg)	Price (TL)	Income (TL)
Fresh Apricots	40 076.9	43.96	1274,7253	,6593	25 494.5
Dried Apricots	14 602.2	14.3	14 587.1	103.23	1 114 689
Apricot Kernel	9 856.0	0.11	7237,2527	11,648	55 207.5
Total income					1 450 645.98

Data is low because there is only 1 person selling fresh apricots.

According to the research, fresh apricot , dried apricot and apricot kernel production in enterprises provide different incomes. Fresh apricots generated a total income of 25,494.5 TL , while dried apricots generated 1,114,689 TL . Apricot kernels generated 55,207.5 TL . While dried apricots were the product that generated the highest income, the total income was calculated as 1,450,645.98 TL .

Table 6. Marketing, organization and problems (%)

		Gener al	Frequency
To whom the sale was made	Apricot Birlik	2.2	2
	Merchant	96.7	88
	Processor	1.1	1
Where the sale is made	Garden	46.2	42
	Business	50.5	46
	Sunday	3.3	3
Sales method	In advance	92.3	83
	Term	8.8	8
Time to sell	September	80.2	73
	August	19.8	18

	General
Total sales quantity (kg)	22 371,4725

96.7% of apricot producers sell their products to traders , while 2.2% and 1.1% to Kayısıbirlik This shows that apricot sales are largely made through traders .

50.5% of apricot producers produce their products in their businesses , 46.2% in their gardens and 3.3% This finding shows that apricot sales are mostly made directly in businesses and orchards.

According to the data , 92.3% of the producers sell their products in cash and 8.8% in installments . This shows that cash transactions are dominant in apricot sales.

According to research findings, 80.2% of producers sell apricots in September and 19.8 % in August . This shows that sales have largely shifted to the post-harvest period .

The average total apricot sales amount of the enterprises participating in the research was determined as 22,371.47 kg . This value shows that the amount of product offered to the market by the producers is quite high and that they operate at the commercial production level

Table 17. Product price preference of operators (%)

	General
Dried apricots (TL, kg)	242,417 6
Fresh apricot (TL, kg)	69.2308

demanded an average price of 242.4 TL/kg for dried apricots and 69.2 TL/kg for fresh apricots . These

demands are above current market prices and reflect producers' income expectations , cost pressures and desire to receive compensation for labor . This situation also brings to the agenda the need for regulation for price stability in the market.

Table 18. The operator's knowledge level about export prices (%)

	General	Frequency
Yes	1.1	91
No	98.9	90

* According to the research results, 98.9% of the operators do not have information about foreign sales (export) prices. This situation shows that the producers are largely disconnected from the international market dynamics and their bargaining power remains weak due to lack of information.

Table 20. The situation of the business waiting to sell its product at a higher price (%)

		General	Frequency
Yes		23.1	21
No		71.4	65
Sometimes		5.5	5
If yes or no, why?	Warehouse problem	41.8	38
	Paying off debt	18.7	17
	Product spoilage	16.5	15

According to the data, only 23.1% of businesses stated that they sell their products early, while 71.4% do not prefer this method. The most common reasons for early sales are storage problems (41.8%) , debt payments (18.7%) and product spoilage (16.5%) . This situation shows that cost pressure and physical infrastructure deficiencies affect producer behavior .

Table 21. Criteria that the business owner pays attention to when selling apricots (%)

	General	Frequency
Getting good price	98.9	90
Making an advance payment (payment method)	100	91
Continuous purchasing	62.6	57
Advance payment	34.1	31
Mutual trust	85.7	78
State support and assurance	14.3	13

According to the data, the criteria that business owners attach most importance to in apricot sales are cash payment (100%) and obtaining a good price (98.9%) . In addition, long-term relationship criteria such as mutual trust (85.7%) and continuous purchases (62.6%) are also important. Advance payment (34.1%) and state support (14.3%) are relatively less emphasized elements.

This situation shows that producers focus on short-term cash flow and price security; market stability and financial access are priorities.

Table 22. During the sale of apricots Criteria that buyers pay attention to during the purchase (%)

	General	Frequency
Must be of good quality	100	91
Reasonable price	100	91
Good sales style	17.6	16

According to the data, the criteria that buyers attach most importance to when purchasing apricots are the quality of the product (100%) and the affordability of the price (100%) . In contrast, the good sales method is only important at 17.6% .

This situation shows that buyers in the market adopt quality and price as primary evaluation criteria, and keep other commercial conditions in the background.

Table 23. Problems encountered by the operator during the production period (%)

Problems	General	Frequency
Input prices	100	91
Technical knowledge level	6	6.6
Working capital	96.7	88
Supply of workers	100	91

* The biggest problems that business owners face during the production period are input prices (100%) and labor supply (100%). This shows that increases in input prices, which affect the costs of manufacturers, and difficulties in labor supply negatively affect the production process. In addition, the problem of working capital also stands out as an important obstacle.

Table 24. Problems encountered by the operator during apricot production and marketing (%)

	General	Frequency
Excessive number of diseases and pests	93.4	85
Low productivity	92.3	84
The expensiveness of inputs (fertilizer, medicine, water, etc.)	97.8	89
Inability to find workers for collection	96.7	88
High collection labor cost	86	94.5
Problems with drying	61.5	56
The price offered by traders is low	97.8	89
Problems with storage and waiting	78	71

Apricot producers face high input prices (97.8%) and low merchant prices (97.8%) as their biggest problems . In addition, labor supply (96.7%) and high labor costs (94.5%) are also important obstacles. In terms of production, diseases (93.4%) and low yields (92.3%) are prominent problems. These findings show that economic and labor-related difficulties constitute the biggest obstacles in apricot production.

Table 26. The situation of selling apricots to the same company continuously (%)

	General	Frequency
Yes	20.9	19
No	79.1	72

* According to the survey results, 79.1% of apricot producers stated that they do not sell apricots to the same company all the time. Only 20.9% prefer to sell apricots to the same company all the time. This situation shows that producers diversify their sales and tend to do business with different buyers. The high rate of not selling to the same company all the time may reflect avoiding market risks and seeking price flexibility.

Table 27. Business benefiting from support (%)

	Supports	General	Frequency
Yes	Diesel	94.5	86
	Fertilizer	94.5	86
	Soil analysis	45	49.5
	Certified saplings	41.8	38
	Organic farming practice .	94.5	86
	Premium money	94.5	86
No			
Per support How much is it per year? (TL, Year)	138 TL	94.5	86

A large portion of apricot producers benefit from various supports. The rate of benefiting from supports such as fuel oil, fertilizer, organic farming practices and premium money is quite high (94.5%). However, the rate of benefiting from more specific supports such as soil analysis (45%) and certified saplings (41.8%) is low. Producers receive an average of 138 TL in support annually .

Table 29. Insurance activity status of the enterprise (%)

	Types of insurance	General	Frequency

Yes	Full	0	0
	Frost	0	0
	Storm	0	0
	All	91.2	83
No		8.8	8

The majority of apricot producers (91.2 %) have insurance, and this insurance is generally in the category of all risks . However, specific insurance types such as hail, frost and storm insurance are not preferred at all. This situation shows that producers generally prefer insurance packages that cover all risks, but there are no insurance demands for special risks. Only 8.8% do not have a group insurance.

Table 30. The situation of the enterprise in meeting the labor force in apricot production (%)

	General	Frequency
Seasonal workforce	33	30
Family workforce	1.1	1
All	65.9	60

The vast majority of apricot producers (65.9%) state that they meet their workforce with both seasonal and family workforce. Only 33% of businesses rely on seasonal workforce, while a very small portion (1.1%) use only family workforce. This shows that apricot producers generally outsource their workforce needs.

Table 33. Relationship between the education status of producers and their benefiting from

Do you benefit from support?		Education Status				General	Chi Square P Value
		Primary education	Secondar y Education	High school	Licence		
Yes	F	23	36	22	5	86	0.008
	%	25.3	39.6	24.2	5.5	94.5	
No	F	5	0	0	0	5	
	%	5.5	0.0	0.0	0.0	5.5	
General	F	28	36	22	5	91	
	%	30.8	39.6	24.2	5.5	100.0	

In the study, chi-square analysis was conducted between education status and benefiting from support.

from the support , and only 5.5% do not benefit from any support. When the distribution according to education level is examined:

Secondary school graduates are the group that benefits the most from support, with all individuals in this group (100%) receiving support and accounting for 39.6% of the total.

While 25.3% of primary school graduates received support, 5.5% did not. This shows that all individuals who did not receive support were primary school graduates.

All high school and undergraduate graduates benefit from support (24.2% and 5.5%).

The chi-square test result of $p = 0.008$ shows that this distribution is not random, that is, there is a statistically significant relationship between educational status and benefiting from support ($p < 0.05$).

These findings suggest that individuals with secondary education and above benefit more effectively from agricultural supports, while individuals with primary education in particular are less able to access support due to reasons such as lack of information, difficulty in accessing the application process or lack of awareness. This situation reveals that agricultural support

policies may differ according to the level of education and the importance of information and guidance activities aimed at producers with low levels of education .

Table 34. Relationship between education level of producers and their insurance activities

Are you engaged in insurance activities?		Education Status				General	Chi Square P Value
		Primary education	Secondary Education	High school	Licence		
Yes	F	21	36	21	5	83	0.003
	%	23.1	39.6	23.1	5.5	91.2	
No	F	7	0	1	0	8	
	%	7.7	0.0	1.1	0.0	8.8	
General	F	28	36	22	5	91	
	%	30.8	39.6	24.2	5.5	100.0	

chi-square analysis was conducted between education level and insurance activity status . The data obtained reveal that there is a statistically significant relationship between the education level of individuals and their participation in agricultural insurance activities (**Chi-square p = 0.003**). This result shows that participation in insurance activities is not random and varies depending on the level of education.

The vast majority of individuals who have insurance are secondary school graduates (39.6%), primary school graduates (23.1%) and high school graduates (23.1%). The high participation of individuals with secondary and high school education in insurance activities suggests that these groups are more conscious of risk management and have more advantages in terms of access. On the other hand, the fact that almost all of the individuals who do not have insurance are primary school graduates (7.7%) indicates that low education levels lead to a lack of awareness and access to insurance practices

Table 35. Relationship between age groups of producers and their thoughts on re-establishing apricot gardens

re- establish an apricot garden facility would you set up?		Age Groups			General	Chi square P value
		Between 26-30 years old	Between	51 and over age group		
Yes	Frequency	1	31	36	68	0.036
	%	1.1	24.2	39.6	74.7	
No	Frequency	3	12	8	23	
	%	3.3	13.2	8.8	25.3	
General	Frequency	4	43	5	91	
	%	4.4	47.3	5.5	100	

In the study, Chi-square analysis was applied to determine the relationship between the age group of individuals and their tendency to rebuild the facility. The data obtained as a result of the analysis show that there is a statistically significant relationship between age groups and attitudes towards rebuilding (Chi-square p = 0.036). This finding reveals that the responses of individuals are not randomly distributed; they differ depending on the age variable. According to the data, the majority of individuals who support rebuilding the facility are over 51 years of age (39.6%) and in the 31–50 age group (24.2%). The fact that these groups, especially the older age group, show a high level of participation in rebuilding the facility suggests that environmental and socioeconomic risks are perceived more strongly as age increases and a more active role is played in decision-making processes

SWOT ANALYSIS

Strengths

High demand for apricots and strong marketing potential

Significant income-generating capacity

Access to various agricultural subsidies and support mechanisms

Availability of agricultural insurance options

Strong local and personal networks facilitating production and sales

Weaknesses

Insufficient knowledge about export prices and global markets

Limited market diversification

High input costs (e.g., fertilizers, pesticides, fuel)

Shortage of qualified labor during harvest periods

Inadequate storage and post-harvest handling facilities

Opportunities

Growth potential in organic agriculture and use of certified saplings

Expansion of marketing channels, including digital platforms

Increasing government support and access to financial resources

Opportunities for penetration into new markets and boosting export volumes

Threats

Low purchasing prices offered by traders and fluctuating demand

Adverse effects of climate change and increased risk of crop diseases

Rising input costs impacting profitability

Limited coverage and effectiveness of agricultural insurance schemes.

CONCLUSIONS

Apricot producers are generally concentrated in key areas such as lack of education, low public support, limited marketing opportunities, high input costs and labor supply. Producers expect more support in apricot cultivation and marketing processes. Training programs, increased government support, strengthening marketing strategies, reducing input costs and improvements in labor management will alleviate these problems faced by producers and make production processes more sustainable .

In addition, adopting modern methods such as cooperatives and digital marketing can help apricot producers increase their income by providing access to wider markets. In this context, more effective use of the support provided by the state and local governments will increase the productivity and competitiveness of producers.

As a result, solving the problems encountered in apricot production and marketing will support both the economic sustainability of producers and regional development. Steps to be

taken in this context will ensure that agricultural production becomes more efficient, profitable and sustainable.

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