



E-ISSN: 2618-0618

P-ISSN: 2618-060X

© Agronomy

www.agronomyjournals.com

2024; SP-7(2): 01-04

Received: 01-11-2023

Accepted: 05-12-2023

Avinash Suresh Rao Pradhan

Ph.D. Scholar (Agri-Business Management), Department of Agriculture Economics, SHUATS, Prayagraj, Uttar Pradesh, India

Dr. Nitin Barker

Assistant Professor, Department of Agriculture Economics, SHUATS, Prayagraj, Uttar Pradesh, India

Dr. Ameesh John Stephen

Assistant Professor, Department of Agriculture Economics, SHUATS, Prayagraj, Uttar Pradesh, India

Rakesh Mishra

Ph.D. Scholar (Agri-Business Management), Department of Agriculture Economics, SHUATS, Prayagraj, Uttar Pradesh, India

Corresponding Author:

Avinash Suresh Rao Pradhan

Ph.D. Scholar (Agri-Business Management), Department of Agriculture Economics, SHUATS, Prayagraj, Uttar Pradesh, India

International Journal of Research in Agronomy

Constraints in marketing and export of grapes in Nashik district, Maharashtra: A comprehensive analysis

Avinash Suresh Rao Pradhan, Dr. Nitin Barker, Dr. Ameesh John Stephen and Rakesh Mishra

DOI: <https://doi.org/10.33545/2618060X.2024.v7.i2Sa.280>

Abstract

In India, agriculture is the most important economic sector (Sucheta, 2019). Different types of soil and climate in India, which spans numerous agroecological areas, allow for the cultivation of a wide range of horticultural crops. Maharashtra is the country's largest grape-producing state. The Maharashtra government has proposed establishing an agriculture export zone that would include Nashik, Sangli, Pune, Solapur, Satara, and Ahmednagar districts for exporting table grapes and value-added products like wine in a coordinated manner. The research was carried out in the Nashik District, a total of 200 grapes grower. Farmers face the highest constraint due to limited exposure to export markets. This constraint may hinder their understanding of international market dynamics and regulations. Inadequate storage facilities rank second, which is crucial for maintaining grape quality and extending shelf life.

Keywords: Constraints, exports, grape growers

Introduction

The cultivation of grapes (*Vitis vinifera* L.) stands out as one of the most profitable agricultural ventures in India. Since 1991-92, the grape cultivation area has seen a consistent 7% annual expansion, while production has increased by 6% per year. India holds the remarkable distinction of achieving the highest yield per hectare globally. However, it's crucial to note that this high yield does not necessarily indicate technological superiority over other grape producers. Table varieties yield much higher than varieties used in wine making. Having met the national cereal production objectives, the government of India now strongly supports crop diversification particularly into horticultural crops to make agriculture more profitable and to create rural employment. The National Horticultural Board (NHB) is set up to promote fruit and vegetable production. The government actively promotes private investments in cutting-edge horticulture, encompassing protected cultivation, drip irrigation, integrated pest and nutrient management, as well as the adoption of advanced post-harvest technologies. Additionally, the Agricultural and Processed Food Products Export Development Authority (APEDA), established in 1986, is dedicated to fostering the export of agricultural and processed foods. To enhance traceability and ensure quality, APEDA introduced Grape Net, an internet-based residue traceability software system. This system monitors the export of fresh grapes from India to the European Union, enabling traceability from retail shelves back to the farm of the Indian grower. It involves various stages, including sampling, testing, certification, and packing. The government of India expedited the efforts after independence to enhance food production. This helped to solve the problem of food security. But in due course of time, there raised an awareness about nutrition security besides, food security. It, therefore stressed the need to enhance the production of protective food viz., fruits and vegetable. All the societies exported grapes under a single brand name MAHAGRAPES. To meet the quality requirements of European markets the producers needed to adopt new production practices in addition to improving post-harvest infrastructure. In the realm of horticultural crops, viticulture holds a significant position in India concerning its geographical coverage, production output, value addition, and employment generation in both rural and urban areas.

Grapes, among all horticultural crops, stand out due to their particular significance, notably in the context of value addition through the production of raisins. India is poised for a promising future in expanding its fresh grape, raisin, and wine industry to cater to the growing domestic demand and to tap into the expanding export market, particularly in the European Union and South Asian countries.

Materials and Methods

In order to determine the methodical enquiry for objective elucidation, a research design is very essential. Thus an attempt had been framed which might include various types of sampling procedure, nature and resources of data and its collection and analytical tools that might be employed to accomplish the objective of the study^[5]. The subjoined headings were added to fulfill the purpose to clarify and accomplish objective of the study.

Sampling Structure/Design

The total number of existing grapes grower were anticipated from the purposively selected blocks of Nashik district which is also purposively selected for research purposes and 10 percent from them were selected randomly^[6]. Similarly, primary data grapes grower (sample size might be 5 percent of the existing total farmers) randomly selected from the lists which exist with gram Pradhan from arbitrarily preferred villages.

Table 1: Sampling structure/design

1 st stage	Selection of district	Purposively
2 nd stage	Selection of blocks	Purposively
3 rd stage	Selection of village	Randomly selected
4 th stage	Selection of respondents	Stratified random sampling
5 th stage	Selection of market & market functionaries	Purposively

Study Area

Studies were conducted conveniently in Nashik district

Duration of Study: 2021-2022

1st stage - selection of the district

Nashik District were divided into 15 CD block. The reason for selection District were following

1. The researcher himself is familiar with the area.
2. The researcher is conversant with the local language, geography, agricultural situation and other aspects of the area.
3. The knowledge of tract was also helpful for collecting reliable information's.

Selection of Block- Nashik

There are 15 community development blocks in Nashik district viz. Nashik, Baglan, Chandvad, Deola, Dindori, Lgatpuri, Kalwan, Malegaon, Niphad, Peint, Sinnar, Sargana, Tribakeshwar and Yevla. Dindori and Niphad block were selected purposively for the study based on the fact that these blocks were highest area under grape cultivation. List of all the 15 community development block of Nashik district along with total area under grapes production was obtained from current official records available in the District Horticultural Office Nashik.

Selection of Villages in Nashik district

There are 332 villages in two selected blocks. From the offices

of block development officer from each block a list of villages was procured and such villages were sorted out with highest concentration of grapes farm which was 127. Out of the total villages of grape farms approx. 10% i.e. 6 villages from each blocks were selected randomly for the present study. from the block Dindori and Niphad situated in Nasik district. Pimpalnare, Palkhed, Matrewadi, Ashwantwadi, Chamdri, Bopegaon are the six villages selected from Dindori block. Where as Dawchiwadi, Nanduri and Ugaon, Sakore, Ozar, Kokangaon are six villages selected from Niphad block.

After selection, records of the sample villages were obtained and physically verified for the geographical location, number and area of grapes farms in it and other economic aspects.

A list of grape farms was prepared with the help of Gram Pradhan from the selected villages. Then after 5% respondents from total number of farms from each villages was randomly selected. After collection of primary data respondents were categorise done the basis of Land-holding for the present study.

1. Small –less than 1 ha,
2. Medium–2 ha to 3 ha
3. Large –3 ha and above.

It was observed that number of grapes farmers in smaller size group of farms is less than their larger size group counterparts. Most of the marginal and some of the small farmers had farms in common ownership because the farms was established by their parents when the holding size was large but later due to partition in family they become owner of smaller land holding and farms to remained with them. Every stratum for each village separately was arranged in descending order of the size of their holdings. The table below describes the list of respondents taken from each village located in Nashik districts on the basis of farmers involved in the overall farming and actors in the supply chain management of grapes

Statistical Tools

Frequency

This measure was used to know the distribution pattern of respondent's variable wise and to categorize the problems perceived by respondents in order of importance.

Percentage analysis methods

Formula

$$P = \frac{X}{N} * 100$$

Where;

P= Percentage X= Frequencies

N= Total number of respondent

Garrett ranking: Garrett ranking technique was applied to study the preference, change of orders of constraints and advantages in to numerical scores. The prime advantage of the technique over simple frequency distribution is that the constraints are arranged based on their civility from the point of view of respondents.

Garrett's formula for converting ranks into percent was given by,

$$\text{Percent position} = 100 (R_{ij} - 0.5) / N_j$$

Where,

R_{ij} = rank given for i^{th} factor by j^{th} individual

N_j = number of factors ranked by j^{th} individual

Results and Discussion

Table 1: Constraints faced by the farmers in marketing

Sr. No.	Marketing Constraints	Garret Score	Rank
1	Lack of exposure to export markets	57.285	I
2	Inadequate storage facilities	55.39	II
3	High cost of packing materials	55.265	III
4	Inadequate transport facilities	55.175	IV
5	Inadequate marketing information	55.13	V
6	Unremunerative prices	53.14	VI
7	Existence of monopoly price situation	50.645	VII
8	Frequent price fluctuation in the markets	49.42	VIII
9	Lack of organized marketing system	47.23	IX

Table No: 1 provides information about the constraints faced by farmers in marketing grapes, along with their respective Garrett Scores and ranks. Here are the interpretations and inferences:

Lack of Exposure to Export Markets (Garret Score: 57.285, Rank: I): This constraint has the highest Garrett Score and is ranked first. It indicates that farmers face challenges due to limited exposure to international export markets. This could include issues related to understanding export requirements, market dynamics, and export regulations.

Inadequate Storage Facilities (Garret Score: 55.39, Rank: II): The second-ranked constraint with a relatively high Garrett Score suggests that farmers encounter difficulties due to insufficient storage facilities. Proper storage is crucial for maintaining grape quality and extending shelf life.

High Cost of Packing Materials (Garret Score: 55.265, Rank: III): The third-ranked constraint pertains to the high costs associated with packing materials used in grape marketing. High packing material costs can affect the overall profitability of grape farming.

Inadequate Transport Facilities (Garret Score: 55.175, Rank: IV): Farmers face challenges related to inadequate transportation facilities, which is the fourth-ranked constraint. Efficient transport is essential for getting grapes to markets on time while maintaining their quality.

Inadequate Marketing Information (Garret Score: 55.13, Rank: V): This constraint is ranked fifth and is associated with farmers not having access to sufficient marketing information. Lack of information can lead to marketing inefficiencies and missed opportunities.

Unremunerative Prices (Garrett Score: 53.14, Rank: VI): Farmers find themselves in a situation where they receive unremunerative prices for their grapes. This constraint ranks sixth. Low prices can significantly impact farmers' income and livelihoods.

Existence of Monopoly Price Situation (Garret Score: 50.645, Rank: VII): This constraint, ranked seventh, indicates that farmers may face monopolistic pricing practices, which can limit their ability to negotiate fair prices for their grapes.

Frequent Price Fluctuation in the Markets (Garret Score: 49.42, Rank: VIII): The eighth-ranked constraint suggests that farmers deal with frequent price fluctuations in the markets. Price instability can make it challenging to plan and manage grape marketing effectively.

Lack of Organized Marketing System (Garret Score: 47.23, Rank: IX): This constraint is ranked ninth and reflects the absence of an organized marketing system for grapes. A well-structured marketing system can help farmers streamline their marketing activities and ensure fair prices.

Inferences: The data shows that farmers face several challenges and constraints in marketing grapes. The top-ranked constraints relate to issues such as lack of exposure to export markets, inadequate storage and transport facilities, high packing material costs, and limited access to marketing information. These constraints can impact the efficiency and profitability of grape farming and marketing.

Furthermore, challenges like unremunerative prices, monopolistic pricing, and price fluctuations add to the difficulties faced by farmers. Lastly, the absence of an organized marketing system underscores the need for better marketing infrastructure and support for grape growers.

These constraints point to areas where interventions and improvements can be made to enhance the marketing environment for grape farmers. Addressing these challenges can potentially lead to more profitable and efficient grape marketing practices.

Table 2: Constraints faced by the farmers in Export

Sr. No.	Export constraints	Garret Score	Rank
1	Non-availability of updated export market information	55.25	I
2	Lack of knowledge about packaging and grading	54.87	II
3	Unavailability of labour during peak period of intercultural operation	54.07	III
4	Fluctuation in rule and regulations of grape export from importer country	53.43	IV
5	Lack of access to more exportable varieties	50.79	V
6	Lack of knowledge about maximum permissible residue level	49.85	VI

Table No: 2 presents the constraints faced by farmers in exporting grapes, along with their corresponding Garrett Scores and ranks. Here is the interpretation and inference:

Non-availability of Updated Export Market Information (Garret Score: 55.25, Rank: I): This constraint holds the highest Garrett Score and is ranked first. It suggests that farmers encounter significant challenges due to the lack of updated information about export markets. Timely and accurate market information is crucial for making informed decisions and adapting to changing market dynamics.

Lack of Knowledge about Packaging and Grading (Garret Score: 54.87, Rank: II): The second-ranked constraint highlights that farmers face difficulties because they lack knowledge about appropriate packaging and grading practices for export. Proper packaging and grading are essential for meeting international quality standards.

Unavailability of Labor during Peak Period of Intercultural Operation (Garret Score: 54.07, Rank: III): This constraint, ranked third, suggests that farmers experience labor shortages during critical periods of intercultural operations. A lack of available labor can hinder farming activities during crucial stages.

Fluctuation in Rules and Regulations of Grape Export from Importer Country (Garret Score: 53.43, Rank: IV): The fourth-ranked constraint indicates that farmers grapple with uncertainties due to frequent changes in rules and regulations governing grape exports in importer countries. Adapting to evolving export regulations can be challenging.

Lack of Access to More Exportable Varieties (Garret Score: 50.79, Rank: V): This constraint, ranked fifth, suggests that farmers may not have access to grape varieties that are in demand in export markets. Exportable grape varieties are critical for expanding international trade.

Lack of Knowledge about Maximum Permissible Residue Levels (Garret Score: 49.85, Rank: VI): The sixth-ranked constraint relates to farmers lacking awareness of the maximum permissible residue levels for pesticides and chemicals in exported grapes. Understanding these levels is crucial for meeting quality and safety standards.

Inferences: The data reveals several constraints that farmers face when it comes to exporting grapes. These challenges span issues such as inadequate access to updated export market information, a lack of knowledge about packaging and grading requirements, and labor shortages during critical farming stages. Furthermore, the fluctuation in rules and regulations in importer countries and the absence of certain exportable grape varieties hinder the smooth flow of grape exports. The lack of knowledge about maximum permissible residue levels for pesticides and chemicals further adds to the complexities involved in export. Inferences from this data indicate that addressing these constraints will be pivotal in supporting and promoting grape exports. Providing farmers with updated market information, training on packaging and grading standards, labor management solutions, and access to desired grape varieties can improve their export capabilities and competitiveness in the global market. Additionally, consistent awareness and adherence to changing export regulations are vital for sustained success in grape exports.

Conclusion

In conclusion, addressing these constraints will be pivotal in supporting and promoting grape marketing and exports. Providing farmers with updated market information, training on packaging and grading standards, labor management solutions, and access to desired grape varieties can improve their marketing and export capabilities. Additionally, consistent awareness and adherence to changing export regulations are vital for sustained success in grape exports.

References

1. Ahire AM, Bhonde SR. Marketing Channels and Price Spread of Grapes-A Study of District Nashik, Maharashtra. *Financing Agriculture*, 2008, 27.
2. Chavan PM, Shirke VS, Ahire MC, Kharde PB. Constraints faced by grape growers in the Nashik District of Maharashtra, 2021.

3. Gulave CM, Nirgude RR, Gavali AV. Economic analysis of exporters and non-exporters of grape in western Maharashtra. *BIOINFOLET-A Quarterly Journal of Life Sciences*. 2017;14(1):79-81.
4. Jagtap MD. Study of production and marketing management of Grapes in Pune District and strategies for increasing productivity and profitability (Doctoral dissertation, Tilak Maharashtra Vidyapeeth); c2015.
5. Karangami RS, Bhange SB, Ahire MC, Chavai AM. Constraints in export faced by grape growers, 2021.
6. Ramesh NV, Singh P, Kumar S, Rakesh ES. Constraints Analysis of MAHAGRAPES Farmers. *Indian Journal of Extension Education*. 2014;50(3and4):32-35.
7. Shende AH, Tupe SD. Problems and prospects of grape exports: A case study of Maharashtra; c2004.
8. Yarazari SP, Singh AK, Maji S. Production and Marketing Problems Faced by Dry Grape Producers of Karnataka. *Indian Journal of Extension Education*. 2022;58(1):183-185.