



Research Paper

Marketing of Stone Fruits in Sirmour District of Himachal Pradesh

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ABSTRACT

The present study on “**Marketing of Stone Fruits in Sirmour District of Himachal Pradesh**” was conducted in Rajgarh region of Sirmour district with sample size of 60 respondents. The study has categorically highlighted major problems faced by farmers in production and marketing of stone fruits. It was specifically noted from the results that the major marketing problem faced by the farmers is multiplicity of charges, followed by inadequate market information and high transportation charges that requires an immediate redressed. Delhi is the most preferred markets for peach. It was suggested that the growers should opt for new and improved varieties of stone fruits which can cope up with the changing climatic conditions in this area and also which can produce well in this type of climate. For the efficient marketing of fruits, the growers of this area should make their co-operative societies. This will avoid the exploitation by middlemen and also will act as a link between growers and the government.

Key words: Marketing, Production, Stone Fruits, Farmers

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I. INTRODUCTION

India is also gifted with variety of agro-climatic conditions and is the second largest producer of fruit and vegetables accounting for about 8 and 13 per cent of the total world production respectively (Subramanyam, 1994). India has a wide variety of climate and soils on which a large number of fruit crops can be grown. India is the second largest producer of fresh fruits in the world and accounts for 12. percent of the total world production of fruits. In India, the area under fruits production is around 6.38 million hectare and total production is around 74.88 metric tonnes (Indian Horticulture Database, 2011).

The state has a total geographical area of 55,673 kilometre. The total area under horticultural crops in Himachal Pradesh is around 2,24,352 hectare in (2014-2015) The total fruit production is around 7,51,938 metric tons (Anonymous 2015) having gross value around 3582.91 crore. (Anonymous 2015) The per capita income from fruits is around 5225 rupees (Anonymous 2015). In H.P. about 28,000 hectare of area is under peach, plum, apricot, almond and cherry. Among the stone fruits commonly grown fruits are peach, plum and apricot. These fruits are grown in mid-hills sub temperate ranging from 915-1523 meters above mean sea level. In India, primarily the cultivation of peaches, plums cherries and apricots are concentrated in north Indian hilly states of Jammu & Kashmir, Himachal Pradesh and Uttarakhand. In addition, low chilling peaches and plums have occupied a place of their own in the horticultural map of north India with their production on commercial scale particularly in the states of Punjab, Haryana and Uttar Pradesh (Saraswat, 2003).

Stone fruits as a group occupy an area of 0.11 million hectare, with 0.14 million tons production. In the North-western Himalayan region, peach holds greater promise because of its utilization for canning purposes. Peach is grown mainly in low and mid hilly areas (1000-2000 m above sea level), except the low chilling cultivars belonging to the Florida group, which can be grown very well under sub-tropical conditions. The productivity of all the stone fruits is low and estimated yield of peach is 50,000, 73,000, 211000 and 223000 ton/hectare in H.P, J&K, U.P, and North East Regions respectively. The productivity of cherry in J&K is approximately 173000 ton/hectare, while average yield of apricot is 42,000, 20000 and 28000 ton/hectare in H.P, J&K and U.P. hills respectively. Area and production statistics indicates very low productivity levels of these stone fruits in India compared to world standard, despite the fact that these fleshy stone fruits are cherished commodities reaching the markets at the earliest in the season when virtually no other fruits are available in the market. Important stone fruit varieties grown in the state include *July Elberta* and *J.H. Hale* in case of peach;

Centa Rosa and *Satsuma* in case of plum and *New Castle*, *Kaisha*, *Saffeida* and *Shakkar Para* in case of apricot (Fraser, 2010).

Efficient marketing is very important in case of stone fruits. The fruit marketing is different from other crops like cereals, pulses and oil seeds, because of their high perishability, concentration of trade in a few hands and production by large number of growers on small holdings. (Nicholson, 1990)

II. MATERIALS AND METHODS

2.1 Selection of Study Area

Present study was confined to Rajgarh valley of district Sirmour only as this valley is having a good amount of stone fruits (peach, plum and apricot). Rajgarh is known as the "peach valley of HP." as it has maximum area under peach cultivation and also greater part of production of peach comes from this area.

2.2 Selection of Study Sample

Stone fruits growers from this area were taken as sampling unit. Out of the selected area, 3 panchayats were selected, which were having maximum peach orchards. Then, a nucleus village from each panchayat was selected for the study, along with at least 2 nearby villages to form a cluster. Now from each panchayat 20 farmers were selected for data collection. A total of 60 farmers constituted the sample size in addition to these discussions were held with important marketing middlemen (commission agents and retailers) in local markets.

2.3 Collection of Data

Both primary and secondary data have been used for the study. Primary data were collected from stone fruits growers and forwarding agents and retailers through personal interviews and questionnaire method.

2.4 Data Analysis

Data collected from the respondents was classified and tabulated as per the requirements of the study. The data have been analysed using statistical tools including percentage analysis, mean and preference ranking.

2.4.1 Percentage Analysis

Percentage method offers to a special kind of ratio which is used in making comparison between two or more series of data. The formula used in percentage method is:

$$P = \frac{X}{Y} \times 100$$

X= Number of respondents falling in a specific category to be measured

Y= Total number of respondents

2.4.2 Mean

Mean also known as arithmetic average, is the most common measure of central tendency and can be defined as the value which we get by dividing the total of values of values of various given items in a series by the total number of items.

$$\text{Mean } (\bar{X}) = \frac{\sum Xi}{n}$$

\bar{X} = The symbol used for mean

\sum = Symbol for summation

X_i = Value of the i^{th} item

n = Total number of items

2.4.3 Preference Ranking

In this method respondents were asked to rank their preferences. Weights were assigned to the response in such a fashion that most preferred rank got highest weightage. Frequencies corresponding to particular attribute were multiplied with corresponding weight; Total of these multiplications gave the relative weight of attribute in relation to other attributes.

III. RESULT AND DISCUSSION

The results of the present study carried out in Sirmour district of Himachal Pradesh are presented below:

3.1. Marketing Cost for Selected Stone Fruits in Study Area

Table 3.1 shows the marketing cost for peach, plum and apricot. Marketing cost involved various costs like packaging and grading, transportation and storage charges. In case of peach the average cost on packaging and grading is Rs. 32.18, while the average cost on transportation is Rs. 35.78 and average cost on storage is Rs. 3 per box. For plum, the average cost on packaging and grading is Rs. 23.67 followed by transportation costs which is Rs. 18.67. In case of apricot the average cost on packaging and grading is Rs. 20.67 followed by transportation costs Rs. 17.42. It can be concluded from the table that marketing cost in this area is quite high, due to non-availability adequate marketing facilities and deteriorated road conditions and also inadequate storage facility.

Marketing cost	Average expenditure		
	Peach	Plum	Apricot
Packaging and grading	32.18	23.67	20.67
Transportation	35.78	18.67	17.42
Storage	03.00	00.00	00.00

Source: Field Survey 2018

3.2. Respondent Perception of Important Risk in the Marketing of Stone Fruits in the Study Area

It can be observed from the above tabulate and graphical representation that 98.33 percent respondents consider Perishability of product as high marketing risk and only 1.67 percent consider it as low. In case of low price of product 48.33 percent consider it high market risk and remaining 51.67 percent consider it as low market risk. 81.67 percent respondents consider high marketing cost as high market risk and 18.33 percent consider it as low. In case of exploitation middleman, 3.33 percent consider it as high market risk and 96.67 percent consider it as low market risk and 90 percent consider it as low market risk.. This is clear from the above table that perishability of produce and high marketing costs are the two major risks in the study area. If we can overcome these constraints in the area, production will definitely go up. Moreover, it was also noted that marketing risks associated with stone fruits are comparatively high, since its market has not been able to establish in an organized manner at any APMC market. However, there is no provision of market support price for the stone

Market risk	Intensity of risk %	
	High	Low
Perish ability of produce	98.33	1.67
Low price of produce	48.33	51.67
High marketing cost	81.67	18.33
Exploitation by middle cost	3.33	96.67
Lack of marketing information	10	90

fruits in the research area, which may enable the growers to bear the risk to some extent.

Source: Field Survey 2018

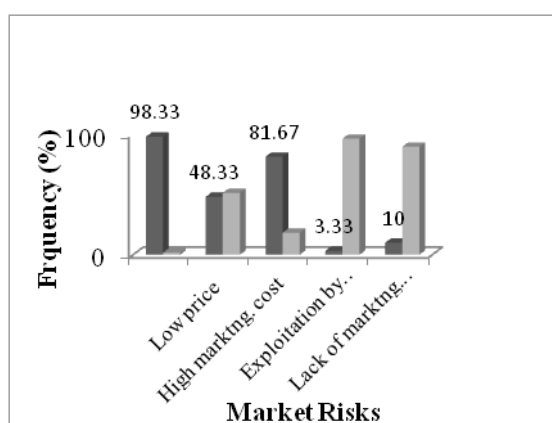


Figure 3.2 Respondent perception of important risk in the marketing of stone fruit in study area.

3.3 Sources of Market Information in the Stone Fruit Growers in the Study Area

It can be seen from the tabular representation that for 87 percent of the respondents, the main source of information is commission agent. 8 percent of the respondents get information from forwarding agents and for remaining 5 percent the source of information is a Source: Field Survey 2018

village trade. The result thus, suggest the importance of commission agents, not only in performing the direct marketing roles, but also in providing the information to the stone fruits growers. One of the reason for

dissemination could be that fruits growers often visits them for taking financial help and for social and farming purposes.

3.4 Sources of Transportation From Main Road to Market

It is quite clear from the above tabulate and graphical representation that transport agencies ,own vehicles,group arrangement are the only mode of transportation from road head to market in the study area. This is due the long distance of market place from the study area and suitability of trucks in carrying bulky products like peach to market place without much spoilage.

Source	Respondent	
	Number	Percentage
Village traders	3	5.00
Forwarding agent	5	8.33
Commission agents	52	86.67
Total	60	100

Sources of transportation	No. of respondents (%)
Transport Agencies	48 (80)
Own vehicle	06 (10)
Group arrangements	03 (05)
Others	03 (05)
Total	60 (100)

Source: Field Survey, 2018

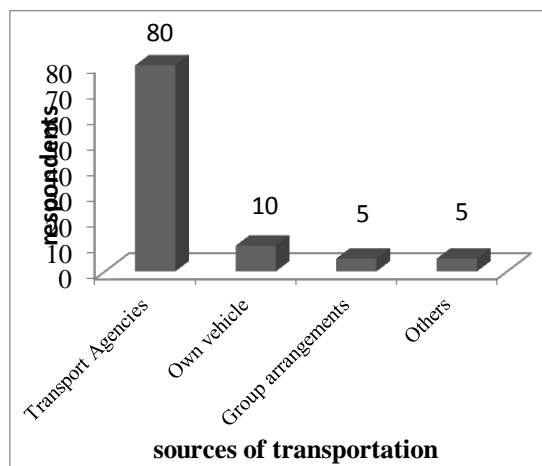


Figure 3.4 Sources of transportation from main road to market in the study area

3.5 Marketing Channel followed by Peach, Plum and Apricot in Study Area

It is quite evident from the above tabular and graphical representation that for peach crop 71 percent of the produce goes to commission agent followed by 18 percent of the produce goes to forwarding agents and only 10 percent of the produce is sold at local market through direct sale. This implies that ¾ of the respondents in study area send their produce to commission agent. So the channel involving commission agent is the most preferred marketing channel for peach in the study area. In case of other two main fruit crops of this area i.e plum and apricot, the whole produce is sold at local market through direct sales. The reason for this may be the very high perishability and low quantity of produce.

Marketing channel	% of produce marketed		
	Peach	Plum	Apricot
Direct sale at local market	10	90	95
Forwarding agent	18.67	7	5
Commission agent	71.33	3	0
Total	100	100	100

Source: Field survey 2018

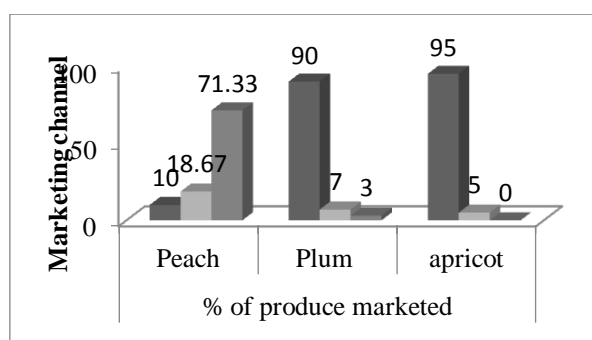


Figure 3.5 Marketing channel followed by peach, plum and apricot in study area

3.6 Reason for Decrease in Production of Stone Fruits in Study Area

This table 3.6 shows different reasons for the decrease in production of stone fruits. According to 55.35 percent respondents, the main reasons, the main reasons for decrease is declining climatic conditions followed by decline in productivity i.e 32.14 percent. According to 7.14 percent of the respondents the main reason behind decrease is increased incidence of diseases and pest and varietal degradation and only 5.37 percent of the respondents considers changing interest of young family members and non-availability of costly input as a main reason for decline in the climatic conditions in the study area .

Reason for decrease in production	Respondents	
	Number	Percentage
Declining climatic condition	31	53.35
Changing interests of young members	1	1.79
Increased incidence of disease and pests	2	3.57
Declining productivity	18	32.14
partial degradation	2	3.57
Non-availability and costly inputs	1	1.79
Any other	1	1.79
Total	60	100

Source: Field Survey, 2018

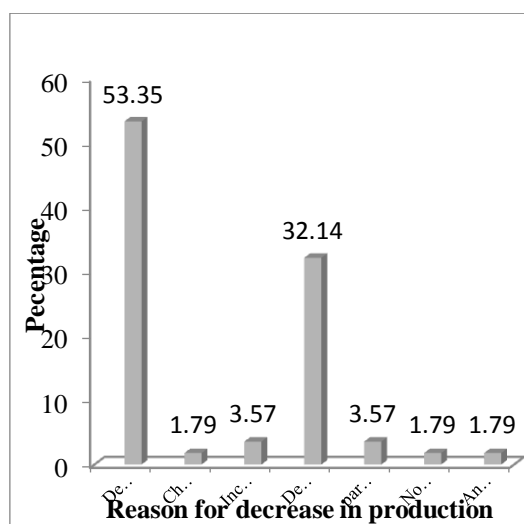


Figure 3.6 Reason for decrease in production of stone fruits in study area

3.7 Farmer’s Perceptual Analysis towards Marketing Problems of Stone Fruits in the Study Area

It is quite evident from the below table 3.7 that major marketing problem faced by the farmers is multiplicity of charges with mean 14.10, followed by inadequate market information with mean 12.5 and high transportation charges with mean 7.75 respectively. Moreover, the total weightage score has also implied that largely Inadequate market information followed by Multiplicity of charges and Lower prices of produce are the key marketing problems that requires an immediate redressal, since these problems are directly associated with the sustainable margins or the stone fruit growers. Therefore, it may have been suggested that Marketing interventions techniques shall be exercised by the relevant government

marketing agencies and various other boards and cooperative societies pertained to agribusiness marketing in the state in order to facilitate the possible efforts and needful initiatives to address the marketing problems in a more comprehensive and purposeful manner, so that growers may feel confident to extend their respective interest to develop the production and marketing of the stone fruits in the area in a more lucrative and diversified manner.

Marketing Problems	High (3)	Moderate (2)	Low (1)	TWS*	Rank	Mean	Standard Deviation
Shortage of skilled labor	11	8	2	51 [#]	VI	6.00	04.58
Shortage of packing material	9	3	1	34	VII	4.00	04.16
Inadequate storage facility	18	5	1	65	V	6.75	08.88
High transportation charges	24	3	1	79	IV	7.75	12.74
Inadequate market information	37	8	2	129	I	12.50	18.71
Multiplicity of charges	29	12	1	112	II	14.10	11.25
Lower prices of produce	34	3	1	109	III	18.50	10.25

Total Weightage Score; [#]113+8*2+2*1=51 Source: Field Survey, 2018

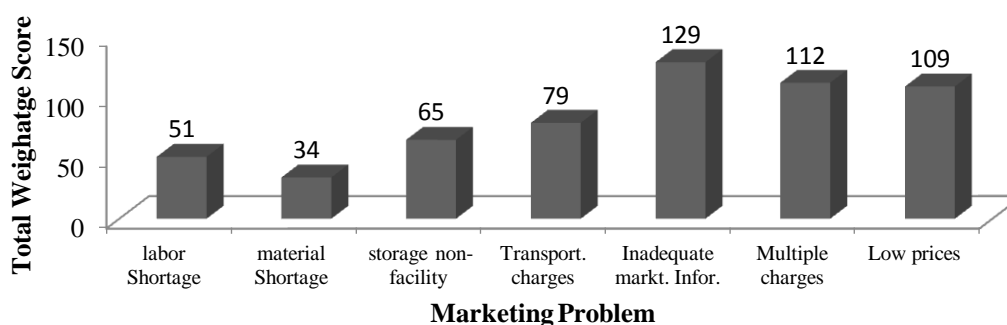


Figure 3.7 : Farmers' Perceptual analysis towards marketing problems of stone fruits in the study area

IV. CONCLUSION

The production of stone fruits in the research area has largely been considered as a multiple crop along with the other crop sown in the same area. The successful completion of the project led to the following conclusions:

1. Marketing cost involved various costs like packaging and grading, transportation and storage charges. It was categorically noted that marketing cost in this area is quite high, due to non-availability adequate marketing facilities and deteriorated road conditions and also inadequate storage facility.
2. Marketing risks associated with stone fruits are comparatively high, since its market has not been able to establish in an organized manner at any APMC market. However, there is no provision of market support price for the stone fruits in the research area, which may enable the growers to bear the risk to some extent.
3. Transport agencies ,own vehicles,group arrangement are the only mode of transportation from road head to market in the study area. This is due the long distance of market place from the study area and suitability of trucks in carrying bulky products like peach to market place without much spoilage.
4. Delhi is the most preferred markets for peach, while Rajgarh and Solan markets are suitable for other two stone fruit .varieties i.e. Plum and Apricot. Marketing channel involves commission agent is the most preferred marketing channel for peach in the study area. In case of other two main fruit crops of this area i.e plum and apricot, the whole produce is sold at local market through direct sales, due to high perishability and low quantity of produce.
5. Major marketing problem faced by the farmers was multiplicity of charges ,followed by inadequate market information and high transportation charges.

ACKNOWLEDGEMENT

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