Original Research Article

Constraints and Suggestions of Fruit Crop Growers of Vijayapura district, India

ABSTRACT

The study was conducted in Vijayapura district of Karnataka during 2019-20 to analyse the constraints and suggestions of fruit crop growers. Forty each grape, lime and pomegranate growers were selected by use of simple random sampling technique. Thus, making a total sample size of 120. Personal interview method was used to collect data and appropriate statistical tools were applied to analyse the data. The findings revealed that, with respect to the constraints faced by fruit crop growers in fruit crop production, production constraints were lack of irrigation facilities (87.50%) followed by high cost of inputs (73.33%). Major financial constraints were non-availability of credit at right time (73.33%) followed by inadequate credit (70.83%). High wages (70.00%) and non-availability of labourer (61.67%) were the main issues relating to labour constraints. Regarding marketing constraints, fluctuating price (87.17%) followed by delayed cash payment and exploitation by middlemen (77.50%) were the major constraints. The suggestions offered by the fruit crop growers are provision for irrigation facility (85.00%) followed by provision of timely and adequate market information (76.67%), protection from exploitation by middlemen (75.00%). Provision for suitable market infrastructure, timely and adequate credit,timely and adequate cash payment, continuous power supply, interest free credit and longer repayment period for credit were other suggestions offered toimprove the returns from fruit crop cultivation.

KEYWORDS

Constraints, Suggestions, Fruits, Grape, Lime, Pomegranate

INTRODUCTION

Climate change is an established occurrence that has begun impacting horticulture crop production, resulting in stagnant yields and diminished productivity. This poses a significant risk to our nation's food security and autonomy(Gora et al., 2012) [1]. The government is persistently working towards realizing the goal of doubling farmers' income. Farmers are now encouraged to shift towards cultivating horticultural crops by diversifying their cropping systems.Cultivation of horticultural crops leads to the improved economic

condition of farmers because of higher returns from many perennial fruit crops, vegetables, seasonal flower crops and marketing of produce throughout the year. Raising horticultural crops has been recognized as an ideal option to improve the livelihood security, attaining food security, enhancing employment generation and also to get additional income through value addition for the farming community. Horticulture crops, particularly fruit and vegetable crops are comparatively resilient to changes in weather conditions. This sector also enables the countrywide population to enjoy a diverse and balanced diet for a healthy living. This sector has gained prominence over the last few years contributing a growing share in the total output of agriculture and allied sectors.

The status of horticulture crops in India has seen a remarkable upswing. The proportion of horticulture output in agriculture has surged to 33%, marking a substantial increase. Notably, fruit and vegetable production in India has surpassed that of food grains. As of 2022-23, the estimated total horticulture production stands at an impressive 351.92 million tonnes. Karnataka stands out prominently, securing the sixth position in India's fruit crop production, boasting a 7.4% share. The total cultivated area for fruit crops in Karnataka spans 4.31 lakh hectares, yielding a production of 7.1 million tonnes (PIB, 2023)[2].Vijayapura district occupies a special place as a major fruit producing district of Karnataka. Though facing the constraints of water scarcity and dry land throughout the year, farmers have still diversified their farm with raising fruit crops such as grape, lime, pomegranate, banana and papaya. Fruit crops occupy 24.4 thousand hectares of area with production up to 4.43 lakh tonnes in Vijayapura district (Anonymous, 2018)[3].

Fruit crops, such as grape, lime, pomegranate, banana, sapota, mango, and papaya, serve as the primary source of livelihood in this district. Among these, grape, lime, and pomegranate are extensively cultivated. The district's predominant industries revolve around agribusiness and food processing, employing a substantial workforce in the small-scale sector. For farmers, fruit crops present an enticing opportunity for entrepreneurship due to their higher yield per unit area, greater returns, efficient resource utilization, and numerous prospects for post-harvest processing and value addition.

Vijayapura district, located in Karnataka's Northern dry zone (Zone-III), contends with challenges such as low and erratic rainfall, frequent floods, elevated temperatures, and nutrient-deficient soil. These factors significantly impede the cultivation of fruit crops, posing substantial difficulties for farmers. Beyond environmental limitations, farmers also encounter

various obstacles concerning marketing and financial constraints. Recognizing these challenges, there's a pressing need to scrutinize the hurdles faced by farmers in both cultivating and marketing fruit crops, with a focus on outlining suggestions for sectoral improvement. The study aims to pave the way for developmental initiatives that foster overall horticulture development in the region.

METHODOLOGY

Vijayapura district of Karnataka state is well known for its fruit production. It is one of the leading producers of fruit crops in Karnataka and also, fruit crop cultivation is being taken up in almost all the taluks of district. Hence, Vijayapura district was purposively selected for the study purposively. Out of five taluks in the district, Vijayapura and Indi taluks were selected based on having maximum area under fruit cultivation, highest production and productivity of fruit crops. Two villages from each of these two taluks having the highest area under fruit crop cultivation were selected for the study. Then, from each village, 10 grape growers, 10 lime growers and 10 pomegranate growers were selected randomly. Thus, the total respondents constituted for the study were 120. Personal interview method was used to collect data and appropriate statistical tools were applied to analyse the data.

After reviewing the literature, a series of significant constraints were previously identified in the survey. Farmers were tasked with assessing each constraint on a three-point scale, indicating the level of hindrance experienced in fruit crop cultivation: larger extent (scored as 3), moderate extent (scored as 2), and lesser extent (scored as 1). Similarly, suggestions were evaluated on a three-point scale: very important (scored as 3), important (scored as 2), and not important (scored as 1). To determine the total score for each constraint and suggestion, the frequency was multiplied by the assigned score. Subsequently, a cumulative score was calculated for each constraint and suggestion, leading to their respective rankings.

RESULTS AND DISCUSSION

Constraints of fruit crop growers

The overall constraints faced by the fruit crop growers are listed in the Table 1. Among production constraints, the major constraints faced were lack of irrigation source (I Rank) followed by high cost of inputs (II Rank), irregular supply of electricity (III Rank),

lack of technical guidance (IV Rank) and non-availability of inputs (V Rank).The study area, situated in the arid region of the state, consistently grapples with inadequate irrigation facilities due to insufficient rainfall in the rainy season. Although there are subsidies provided for adopting water-conservation structures like farm ponds and drip irrigation, not all farmers are well-informed about these opportunities. Cultivating fruit crops demands substantial investment in fertilizers and plant protection chemicals, notably in the case of grape, leading to elevated input costs. Additionally, there has been a scarcity of training and capacity-building initiatives concerning post-harvest prospects in fruit crops. These factors collectively contribute to constraints in production.

The major financial constraints as expressed by fruit crop growers were, non-availability of credit at right time with first rank followed by inadequate credit (II Rank), inadequate subsidy (III Rank), high interest rate on loan (IV Rank) and insufficient repayment time (V Rank). Access to credit significantly influences fruit crop cultivation, particularly during peak seasons, enabling farmers to invest in essential farm inputs. However, the majority of respondents face challenges in accessing formal credit facilities due to the cumbersome and bureaucratic procedures involved. Consequently, they turn to informal sources of credit, which perpetuates the debt cycle.

Labour problems include high wages (I Rank) and non-availability of labourer (II Rank).Cultivating fruit crops demands labour throughout the year, with a heightened need during the harvesting season. Respondents encountered difficulties in securing an adequate number of labourers at a fair wage. The migration of labourers to urban areas in pursuit of improved opportunities stood out as a primary labour crunch and increased wages.

Major marketing constraints as expressed by fruit crop growers were fluctuating price (I Rank) followed by delayed cash payment (II Rank), exploitation by middlemen (III Rank), lack of cold storages (IV Rank) and transportation (V Rank).Following the harvest, fruit crops were transported to nearby markets like Solapur and Nagpur via road for marketing purposes. The participation of middlemen was evident in various stages, including harvesting, loading, transportation, and marketing. This involvement often results in exploitation, as farmers lack the essential infrastructure and facilities to independently market their produce.The findings are supported by the studies of Das et al. (2014) [4], Attar and Aski (2018) [5], Rede and Bhattacharyya (2018) [6], Sumana et al. (2018) [7], Suramwad et al. (2018) [8] and Chavan et al. (2021) [9].

Suggestions of fruit crop growers to overcome the constraints in fruit crop production

The Table 2 mentions the important suggestions given by fruit crop growers to overcome the constraints in fruit crop production. The important suggestions as provided by the fruit crop growers were provision for irrigation source (I Rank), timely and adequate information regarding availability of inputs, prices, arrivals etc. (II Rank), Protection from exploitation by middlemen (III Rank), provision for suitable market infrastructure viz. cold storages etc. (IV Rank), provision for timely and adequate credit (V Rank), timely and adequate supply of inputs (VI Rank), provision for timely and adequate cash payment (VII Rank), provision of continuous power supply (VIII Rank), providing interest free credit (IX Rank), longer repayment period for credit (X Rank) and providing labour saving technologies like mulching, drip irrigation etc. (XI Rank).

The suggestions highlight the farmers' needs to enhance fruit crop cultivation. To address irrigation issues, the adoption of water-saving practices such as farm ponds, drip irrigation, and mulching should be promoted. Access to market information is crucial for farmers, and extension officials can utilize ICT tools like radio, mobile phones, and TV to disseminate this information effectively. Enrolling farmers in formal credit lines like the Kisan Credit Card (KCC) is essential to ensure they receive sufficient and timely credit. Encouraging farmers to join cooperatives can help resolve credit-related issues.Recognizing fruit crops' significance in food processing, farmers should be encouraged to establish Farmer Producer Organizations (FPOs). This step would enable them to market their produce independently, thereby eliminating middlemen and allowing for substantial profit generation. The findings are in line with the studies of Gotyal et al. (2010) [10], Manjula et al. (2011) [11], Chavan (2013) [12],Doddamani (2014) [13], Sumana (2017) [14] andYarazari (2022) [15].

CONCLUSION

Despite grappling with challenges related to climate change and environmental sustainability, Vijayapura district remains a pivotal hub for fruit crop cultivation. These crops serve as a vital source of livelihood for farmers in the region. Understanding the constraints faced during their cultivation and offering suggestions for improvement is imperative to comprehend the farmers' struggles. There is a need for periodic and comprehensive training programs aimed at creating awareness among farmers, followed by robust follow-up,

guidance, and counselling to enhance fruit crop cultivation practices. Encouraging micro-enterprises like juice and pickle making through the Self-Help Group (SHG) approach, particularly in rural areas, can empower women to supplement family income.Efforts should be directed towards providing irrigation sources by subsidizing the construction of farm ponds and establishing custom hiring centres (CHC) for affordable access to farm equipment. It is essential for concerned officials to focus on educating farmers through extension specialists, providing guidance on improved practices, timely market information, and establishing efficient marketing channels. This comprehensive approach will immensely benefit fruit growers in overcoming production constraints.Incorporating these suggestions into the planning and execution of developmental activities by the Karnataka State Department of Horticulture (KSDH) is crucial to enhancing overall fruit production and productivity. This step will pave the way for sustainable fruit crop cultivation in the region.

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Table 1: Constraints of fruit crop growers

Sl. No.	Constraints	Extent of constraints						Score	Rank
		Larger Extent		Moderate extent		Lesser extent			
		f	%	f	%	f	%		
A. Production									
1	Non availability of inputs	58	48.33	34	28.33	28	23.33	270	V
2	High cost of inputs	88	73.33	20	16.67	12	10.00	316	II
3	Lack of technical guidance	79	65.83	26	21.67	15	12.50	304	IV
4	Lack of irrigation source	105	87.50	09	7.50	06	5.00	339	I
5	Irregular supply of electricity	82	68.33	22	18.33	16	13.33	306	III
B. Financial									

1	Inadequate credit	85	70.83	22	18.33	13	10.83	312	II
2	Inadequate subsidy	81	67.50	27	22.50	12	10.00	309	III
3	High interest rate on loan	83	69.17	22	18.33	15	12.50	308	IV
4	Insufficient repayment time	72	60.00	27	22.50	21	17.50	291	V
5	Non availability of credit at right time	88	73.33	23	19.17	09	7.50	319	I
C. Labour									
1	High labour wages	84	70.00	22	18.33	14	11.67	310	I
2	Non availability of labours	74	61.67	27	22.50	19	15.83	295	II
D. Marketing									
1	Transportation	43	35.83	43	35.83	34	28.33	249	V
2	Fluctuating price	101	84.17	13	10.83	06	5.00	335	I
3	Lack of cold storage	89	74.17	18	15.00	13	10.83	316	IV
4	Delayed cash payment	93	77.50	16	13.33	11	9.17	322	II
5	Exploitation by middlemen	92	76.67	17	13.33	11	9.17	321	III

f- Frequency, %- per cent

Table 2: Suggestions of fruit crop growers to overcome the constraints in fruit crop production

Sl. No.	Suggestions	Very important		Important		Not important		Scores	Rank
		f	%	f	%	f	%		
1	Provision of continuous power supply	82	68.33	24	20.00	14	11.67	308	VIII
2	Provision of irrigation facilities	102	85.00	13	10.83	05	4.17	337	I
3	Timely and adequate information regarding availability of inputs, prices, arrivals etc.	92	76.67	20	16.67	08	6.67	324	II
4	Timely and adequate supply of inputs	84	70.00	22	18.33	14	11.67	310	VI
5	Provision for timely and adequate credit	83	69.17	25	20.83	12	10.00	311	V
6	Longer repayment period for credit	81	67.50	18	15.00	21	17.50	300	X
7	Providing interest	81	67.50	24	20.00	15	12.50	306	IX

	free credit								
8	Providing labour saving technologies like mulching, drip irrigation etc.	48	40.00	34	28.33	38	31.67	250	XI
9	Provision for suitable market infrastructure viz. cold storages etc.	87	72.50	23	19.17	10	8.33	317	IV
10	Protection from exploitation by middlemen	90	75.00	20	16.67	10	8.33	320	III
11	Provision for timely and adequate cash payment	81	67.50	27	22.50	12	10.00	309	VII