

RESEARCH NOTE

Constraints Faced by Pomegranate Growers Using Public and Private Extension Service

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ABSTRACT

The aim of the present study was to document the constraints faced by pomegranate growers who are availing consultancy services from private and public extension systems. This study conducted in Hiriyuru, Hosdurga and Challakere taluk of Chitradurga district with a total sample size of 120 comprising 60 growers each under public extension and private extension systems. The "Ex-post facto" research design was used in the study. The constraints were categorized as labour, technical, marketing, input and financial constraints. In case of public extension users, the constraints under technical are obtained mean score 54.50 received first rank, followed by labour constraints. Whereas, in case of private extension users, the constraints of labour obtained with an average score of 54.50 received first rank followed by input constraints. The study clearly indicates that, the pomegranate farmers who are availing the services from public and private extension systems are facing different problems in pomegranate cultivation.

Key words : Pomegranate; Socio-demographic characters; Constraints; Public extension service;

Pomegranate is a high value crop and its entire tree is of great economic importance. Apart from its demand for fresh fruits and juice, the processed products like wine and candy are also gaining importance in world trade (AFC, 2007). Pomegranate is an important fruit crop grown in the dry regions of India. In India pomegranate is cultivated extensively with area of 2,53,000 ha and production of 29,15,000 Metric Tons (DAC&FW, 2018). It has attracted many growers especially those in Karnataka and Maharashtra for its wider adaptability and profitability. Karnataka is one of the progressive states of India with great potential for development of fruit crops. The state is blessed with 10 different agro climate regions suitable for growing variety of fruits all-round the year, Karnataka stands fifth position in area and production of fruits. In Karnataka, pomegranate occupies an area of 25,970 hectares with the production of 2.68 million metric tons (DAC&FW, 2018). The predominant pomegranate growing districts are Chitradurga, Koppal, Bagalkot, Bijapur, Raichur, Belgaum, Bellary and Dharwad.

The pomegranate needs a critical care at the production level and it enhances the need of consultancy service for the production (Shanabhoga et al, 2017a). Hence, there are number of private people working as consultants and some of the input dealers are also providing consultancy service for pomegranate production. Further, the extension personnel from Department of Horticulture and Krishi Vigyan Kendra (KVK) are also providing the consultancy service. Since pomegranate farmers are interested to get better production and income, they seek the guidance for cultivation of pomegranate from different public and private extension system (Shanabhoga et al, 2017b).

In spite of advisories from both public and private extension personnel farmers are facing problems. The success of any programme or services needs enough understanding of the situation. Hence, keeping this as opportunity the present study aim to document the constraints faced by pomegranate growers who are availing services from both private and public extension systems.

METHODOLOGY

The “Ex post facto” research design was used for the study along with cross sectional survey for data primary data collection. The present study was conducted in Chitradurga district of Karnataka state. Three taluks were purposively selected for the study where pomegranate is extensively cultivated. Three taluks namely Hiriyuru, Hosdurga and Challakere of Chitradurga district with a total sample size of 120 comprising 60 pomegranate growers each under public extension and private extension systems. Pretesting of the questionnaire was made and suitable changes were incorporated within the formation of things, questions and their sequences.

Data were collected and statistical tools such as frequency distribution, percentages and averages were employed. The multiple responses were obtained for constraints as Yes (1) and No (0). The total score for each constraint were calculated and average score was calculated for each component and given a rank. All the analysis was carried out using Microsoft Windows Excel and SPSS Version 22.0.

RESULTS AND DISCUSSION

Socio-demographic characteristics of the respondents: The results of socio-economic characteristics of sample farmers are presented in

Table 1. The study of socio-economic characteristics of sample farmers shows that demographic composition was predominantly dominated by middle aged group in public extension (55.00%) and private extension services (51.67%). Pomegranate growers in case of public extension indicated that, majority of the respondents had high school (33.34%) education followed by graduates (31.66%). Whereas in case of private extension respondents had high school (26.66%) education followed by middle school education (23.34%). In public extension service users, more than half of the respondents (56.67%) belonged to medium sized family followed by more than half of the respondents (53.33%) in private extension. The public extension users had medium (50.00%) level of farming experience and in private extension users 45 per cent had high level of farming experience. Further, it is observed from the Table 2, the 45 per cent of the pomegranate growers of public extension were large farmers. Whereas, in private extension users, majority of the respondents (71.67%) were large farmers, followed by small (23.33%) farmers.

The age of the individual will help to think critically and takes the action regarding the particular process. The educated farmers are prefer public extension services as they provide relevant information and in addition to that they themselves seek some information

Table 1. Demographic characteristics of extension services users respondents under public and private services

Characteristics	Category	Public (n=60)		Private (n=60)		Overall (n=120)	
		No.	%	No.	%	No.	%
<i>Age (yrs)</i>	Young (>35 yrs)	15	25.00	13	21.67	28	23.33
	Middle (36 to 46 yrs)	33	55.00	29	48.33	62	51.67
	Old (47< Yrs)	12	20.00	18	30.00	30	25.00
<i>Education</i>	Illiterate	4	6.66	12	20.00	16	13.33
	Up to Middle School	5	8.34	14	23.34	19	15.83
	High School	20	33.34	16	26.66	36	30.00
	PUC	12	20.00	10	16.66	22	18.34
<i>Family size</i>	Graduate	19	31.66	8	13.34	27	22.50
	Small (2-4 members)	9	15.00	13	21.67	22	18.33
	Medium(5-7 members)	34	56.67	32	53.33	66	55.00
<i>Farming experience</i>	Big(8 and above)	17	28.33	15	25.00	32	26.67
	Up to 10 yrs	18	30.00	9	15.00	27	22.50
	11-20 yrs	30	50.00	24	40.00	54	45.00
<i>Land holding</i>	>20 yrs	27	45.00	12	20.00	39	32.50
	Marginal (<2.5 Acre)	13	21.67	3	5.00	16	13.33
	Small (2.5–5 Acre)	20	33.33	14	23.33	34	28.33
	Large (>5 Acre)	27	45.00	43	71.67	70	58.33

from other resources. Whereas in private extension service they follow prescription based extension service. Hence, there is no scope in logical understanding of the practices. In recent times the joint families are dividing into nuclear or medium sized families as the family members are moving apart for employment and education purpose. As discussed earlier the pomegranate farmers are belonged middle age and as the age increases they accumulate the experience in farming. The farming experience will have direct impact on the risk bearing ability and decision making in pomegranate cultivation. It is easy to understand that, large farmers with good resources and high investment capacity might have opted for the pomegranate crop as it attracts huge demand for production. Further, the large farmers who are on the higher strata of the society always venture for new things and aim at wind fall profits. The similar results can be seen in the study conducted by *Shanabhoga et al, (2017c)*.

Constraints faced by Pomegranate growers under Public extension services : The constraints were categorized as labour, technical, marketing, input, and financial constraints and the results were depicted in the Table 2. The constraints under technical in the order of priority were pest and disease incidence, Pest and disease management, lack of knowledge on pruning operation, lack of harvesting equipment's, lack of knowledge on right stage of harvesting ripened fruits for harvest and Lack of knowledge on correct methods of packaging are obtained mean score 54.50 received first rank. The labour problem like high labour cost, lack of skill labour, non-availability of labour during season and labour requirement for operations is very high were obtained with an average score of 54.25 received second rank. Marketing problems like market accessibility, lack of transportation facilities, lack of storage facilities, proper price for produce, lack of market knowledge, and exploitation by intermediaries, heavy market levies and source of information on price of product with average score of 53.12 received third rank. Similarly, input problems like non-availability of quality seedling, non-availability of manures, non-availability of chemical fertilizers in time, non-availability of plant protection chemicals, lack of irrigation facilities and electricity supply with an average score of 40.00 received fourth rank. The financial constraints like not capable of investment, High initial cost of chemicals and non-

availability of working capital with 13.00 average score received last rank.

Table 2. Constraints as perceived by pomegranate growers using public extension service (N=60)

Production constraints	Score	Av. score	Rank
<i>Labour</i>		54.25	II
High labour cost	56		
Lack of skilled labour	54		
Non-availability of labour	55		
Labour is very high	52		
<i>Technical</i>		54.50	I
Pest and Disease incidence high	57		
Difficult pest/disease management	56		
Lack of knowledge on pruning	57		
Lack of harvesting equipments	55		
Lack of knowledge harvesting	50		
Lack of knowledge of packaging	52		
<i>Marketing</i>		53.12	III
Lack of Market accessibility	55		
Lack of transportation facilities	54		
Lack of storage facilities	54		
Lack of Proper price for produce	53		
Lack of market knowledge	53		
Exploitation by middlemen	52		
Heavy market levies	52		
Source of information on price	52		
<i>Input</i>		40.00	IV
Non availability of quality seedlings	40		
Non availability of manures	30		
Non availability of chemical fertilizers	35		
Non availability of plant protection chemicals	35		
Lack of irrigation facilities	55		
Electricity supply/ shortage	45		
Total	240		
<i>Financial</i>		16.66	V
Not capable of investment	15		
High initial cost of chemicals	20		
Non availability of working capital	15		

In case of public extension, consultancy was provided as and when approached by the growers and it was restricted only to factors of production (*Shanabhoga et al., 2017d*). The crop being newly introduced to the area with an export potential and also for local market requires technical knowledge for its full potential growth. Further, any compromise with the technical information may incur heavy loss to the growers. Hence, might have ranked the technical problem first. It is needless to say that the biggest threat

for farming is the acute shortage of labour and in the absence of suitable mechanization, the growers might have ranked labour constraint as the second most problem in pomegranate farming. The crop grown is profitable to the farmers only when they receive better price for the produce. However, the volatile market prices, middle men and lack of information on different markets for the fruits might have forced them to rank this as third. Further, the huge demand for inputs during the season, non-availability of required input also might have contributed for the ranking of this as fourth in the order. It is interesting to note that financial constraint is listed at the bottom and it can be understood better with the facts that the pomegranate cultivation in scientific manner will fetch good income to the growers because of the demand exist in n both local and export market. The returns are assured and hence, the growers might have attached least rank for the financial constraint. The findings were in accordance with the studies conducted by *Ramesh et al. (2007)* and *Karthik (2009)*.

Constraints faced by pomegranate growers under Private extension services : The Table 3 revealed that, in case of the constraints faced by growers under private extension services in pomegranate cultivation from different areas such as labour, technical, marketing, input, and financial problems. The constraints of labour problem like high labour cost, lack of skill labour, non-availability of labour during season and labour requirement for operations is very high are obtained with an average score of 54.50 received first rank. The input problems like non-availability of quality seedling, non-availability of manures, non-availability of chemical fertilizers in time, non-availability of plant protection chemicals, lack of irrigation facility and electricity supply with 43.00 average score received second rank, followed by, technical problem like Pest and Disease incidence, Pest and disease management, Lack of knowledge on pruning operation, Lack of harvesting equipment's, Lack of knowledge on right stage of harvesting ripened fruits for harvest and Lack of knowledge on correct methods of packaging are obtained mean score 40.75 received third rank, further, marketing problems like market accessibility, lack of transportation facilities, lack of storage facilities, proper price for produce, lack of market knowledge, exploitation by middlemen, heavy market levies and source of information on price of product with average score of 28.00 received fourth

rank. Lastly, the financial problems like not capable of investment, high initial cost of chemicals and non-availability of working capital with 7.33 average score received last rank.

Table 3. Constraints as perceived by Pomegranate growers using Private Extension Services classified according to ranking (N=60)

Production constraints	Score	Av. score	Rank
<i>Labour</i>		54.50	I
High labour cost	57		
Lack of skilled labour	55		
Non-availability of labour	54		
Labour is very high	52		
<i>Technical</i>		40.50	III
Pest and Disease incidence high	40		
Difficult pest & disease management	41		
Lack of knowledge on pruning	40		
Lack of harvesting equipments	45		
Lack of knowledge on harvesting	35		
Lack of knowledge on packaging	42		
<i>Marketing</i>		28.00	IV
Lack of Market accessibility	35		
Lack of transportation facilities	31		
Lack of storage facilities	25		
Lack of Proper price for produce	27		
Lack of market knowledge	11		
Exploitation by middlemen	35		
Heavy market levies	37		
Source of info. on price of product	23		
<i>Input</i>		43.00	II
Non availability of quality seedlings	46		
Non availability of manures	40		
Non availability of chemical fertilizers	44		
Non available plant protection chemicals	41		
Lack of irrigation facilities	42		
Electricity supply/ shortage	45		
<i>Financial</i>		7.33	V
Not capable of investment	09		
High initial cost of chemicals	05		
Non availability of working capital	08		

Shanabhogaet al., (2017d) in his study reported that private extension personnel offer consultancy on end to end issues, covering land preparation, planting, irrigation, integrated nutrient management, pest and disease management, harvesting and pruning of Pomegranate plants including the marketing of the produce. It is understandable that under private extension, the farm operations are to be attended by the growers as per schedule provide by the consultants and they can't delay

it which may result in reduced yield. Further, the operations are more and it demands more labour for cultivation. Hence, this might have been ranked first under private extension. The private consultants always recommend applying the recommended doses of inputs and it is mandatory for the grower to follow all the recommendations made by the consultant. Further, whatever the inputs recommended by the consultants needs to be followed by the growers and it requires huge quantity of inputs along with time schedule. Hence, the growers with private extension might have ranked input constraints as the second most problem in the cultivation of pomegranate. The technical details are provided by the consultants time to time and it will be supervised by them through farm visit and hence, the technical problems in terms of its adoption may not be a problem. However, the understanding of the technical issues by the growers may not happen in private extension. Since, it is treated as a prescription based adoption of the technologies by the growers. Hence, they might have treated technical constraints at the third position. The private extension

system provides end to end solution including planning, production, harvesting, packaging and marketing and hence, the growers might not have much problem with the marketing of the fruits. Hence, they might have ranked this as fourth. Further, the reasons cited above with public extension holds good even for the private extension for ranking the financial constraints at the end. The findings were in accordance with the studies conducted by Nagesha (2005) and Nagesh (2006).

CONCLUSION

The study clearly indicates that, the pomegranate farmers who are availing the services from public extension systems facing technical problems, and hence, the public extension need to concentrate more personal contact methods of disseminating the information along with other group and mass contact methods of communication. The study also highlighted the problem of labour in production and hence, provides an insight into the use of farm machineries and equipment's in order to reduce the dependency on labour.

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