



## RESEARCH PAPER

# Profile characteristics of pomegranate growers of North Karnataka

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**Abstract :** The present study explored the profile characteristics of pomegranate growers regarding their knowledge and adoption of recommended pomegranate production practices. The present study was conducted in Vijayapura and Bagalkot districts of Karnataka state during 2022-23. “*Ex-post facto*” research design was employed for the study. The required data on profile characteristics of pomegranate growing farmers was collected by using simple random sampling technique in Vijayapura and Bagalkot districts, constituting a total sample size of 120 farmers. Statistical tools such as frequency, percentage, mean and standard deviation were used to categorize the profile characteristics. It was observed that majority (65.00 %) of the pomegranate farmers belonged to middle age group, 33.33 per cent of them were illiterates, large majority (86.66 %) of them had medium family size, 32.50 per cent of them were semi-medium farmers, more than half (59.17 %) of them had less than 2.50 acres under pomegranate cultivation, majority (70.84 %) of them had pomegranate farming experience of about 1 to 5 years, 35.83 per cent of them had medium extension participation, more than half (54.17 %) of them had low extension contact, two fifth (40.00 %) of them had low mass media exposure, more than two fifth (45.83 %) of them had low social media utilization, two fifth (40.83 %) of them had medium level of innovativeness, 37.50 per cent of them had medium level of economic motivation and 35.83 per cent of them had medium level of market orientation.

**Key Words :** Profile, Pomegranate growers

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## INTRODUCTION

Pomegranate (*Punica granatum* L.) is a significant fruit grown in tropical and subtropical regions worldwide, known by various names like Anar, Dalib and Matulum. Its origins can be traced back to Iran, where it was first cultivated around 2000 B.C. Today, it's cultivated extensively in countries such as Spain, Morocco, Egypt, China, Japan, the USA, Russia, Pakistan, India, and

various Mediterranean nations. Pomegranate ranks 18<sup>th</sup> among the world's major fruit crops in terms of production.

Karnataka has an area of about 29 thousand hectares under pomegranate cultivation and production of about 3 lakh metric tons contributing almost 11 per cent to the national pomegranate produce. Key pomegranate-growing districts in Karnataka include

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Chitradurga, Koppal, Tumkuru, Bijapur, Bagalkot, Bellary and Dharwad. Popular varieties like Kesar (Bhagwa), Super Bhagwa, Ruby Red, Mridula, and Ganesh are cultivated here, with the Kesar variety being prominently grown in several districts of Karnataka.

Pomegranate is known as a “super food” because of its nutrient-rich qualities. Pomegranates are low in calories and fat but high in fiber, vitamins (B3, B4, B6, B5, C and E) and minerals (Calcium, Magnesium, Sodium, Phosphorus and Zinc). Benefits include antioxidants, heart health, urinary health, exercise endurance and more. Pomegranate is acclaimed as the “healing fruit” for its ability to cure over 100 diseases. Studies have found that pomegranate extract may reduce oxidative stress and inflammation in the arteries, lower blood pressure and help fight atherosclerosis plaque buildup in the arteries which can lead to heart attacks and strokes.

## MATERIAL AND METHODS

Keeping the criteria of maximum area under pomegranate cultivation, two talukas from each district, viz., Vijayapura, Indi, Bagalkot and Bilagi are selected. Based on the highest area under pomegranate cultivation, two hoblis were selected from each selected taluk. By employing simple random sampling technique, 30 farmers growing pomegranate from each taluka, viz. Vijayapura, Indi, Bagalkot and Bilagi were randomly selected to constitute a total sample of 120 farmers.”*Ex-post facto*” research design was employed for the study. The required data on profile characteristics of pomegranate growing farmers was collected by using simple random sampling technique. Statistical tools such as frequency, percentage, mean and standard deviation were used to categorize the profile characteristics.

## RESULTS AND DISCUSSION

The experimental findings obtained from the present study have been discussed in the following headings:

### Profile characteristics of pomegranate growers :

#### Age :

It was observed from Table 1 that majority (65.00 %) of pomegranate growers belonged to middle age category, 22.50 per cent of them belonged to young age category and 12.50 per cent of them belonged to old age category, respectively. Middle-aged individuals often possess more experience in agriculture compared to

**Table 1: Profile of pomegranate farmers**

Sr. No.	Category	f	%
1.	<b>Age</b>		
	Young (18-35 years)	27	22.50
	Middle (36-55 years)	78	65.00
	Old (above 55 years)	15	12.50
	Mean = 45.00		
2.	<b>Education</b>		
	Illiterate	40	33.33
	Primary school (1 <sup>st</sup> – 4 <sup>th</sup> std)	15	12.50
	Middle school (5 <sup>th</sup> -7 <sup>th</sup> std)	10	08.33
	High school (8 <sup>th</sup> -10 <sup>th</sup> std)	19	15.83
	PUC(11 <sup>th</sup> and 12 <sup>th</sup> std)	22	18.33
	Graduation	11	09.17
Post-graduation	03	02.50	
3.	<b>Family size</b>		
	Small (<4 members)	02	01.67
	Medium (4-8 members)	104	86.66
	Large (>8 members)	14	11.67
	Mean=6.00		
4.	<b>Land holding</b>		
	Marginal farmer (Upto 2.50 acres)	21	17.50
	Small farmer (2.51 to 5.00 acres)	29	24.17
	Semi-medium farmer (5.01 to 10.00 acres)	39	32.50
	Medium farmer (10.01 to 25.00 acres)	24	20.00
	Big farmer ( Above 25.00 acres)	07	05.83
	Mean= 11		
5.	<b>Area under pomegranate cultivation</b>		
	<2.50 acres	71	59.17
	2.51 to 5.00 acres	38	31.67
	5.01 to 10.00 acres	10	08.33
	10.01 to 25.00 acres	0	0.00
	Above 25.00 acres	1	0.83
	Mean = 3		
6.	<b>Pomegranate farming experience</b>		
	1-5 years	85	70.84
	6-10 years	25	20.83
	11-15 years	03	02.50
	16-20 years	04	03.33
	>20 years	03	02.50
	Mean= 4		
7.	<b>Annual income</b>		
	Low (< Rs.5,69,865.54)	60	50.00
	Medium (Rs.5,69,865.54 to Rs.9,80,884.46)	17	14.17
	High (>Rs.9,80,884.46)	43	35.83
	Mean = 7,75,375		SD= 4,83,551.67
f = Frequency		% = Percentage	

younger generations.

**Education :**

The results from Table 1 revealed that 33.33 per cent of the pomegranate growers were illiterates, 18.33 per cent of them had education till PUC and 15.83 per cent of them had education till high school. About 12.50 of them studied till primary school, 9.17 per cent of them were graduates, 8.33 per cent of them had studied till middle school and only 2.50 per cent of them were post graduates. This might be because of the lower socio-economic profile of the pomegranate growers and the lack of educational infrastructure in their villages since rural people are still traditionally bound and don't prefer to send their children to schools and colleges.

**Family size :**

An insight into Table 1 mentioned that a large majority of pomegranate growers (86.66 %) belonged to medium sized family, 11.67 per cent of them belonged to large sized family and 1.67 per cent of them belonged to small family size categories, respectively. The prevalence of medium-sized families might be due to inheritance and succession planning. Cultural and societal norms and also could also be influenced by economic factors.

**Land holding :**

An observation of the data presented in Table 1 revealed that 32.50 per cent of the pomegranate growers belonged to semi medium farmer category, followed by 24.17 per cent of them belonging to small land holding category, 20.00 per cent belonging to medium land holding category, 17.50 per cent belonging to marginal land holding category and 5.83 per cent of them belonging to big land holding category. Law of inheritance and separation of joint families might be the reason for semi medium land holdings.

**Area under pomegranate cultivation :**

An insight into Table 1 indicated that more than half

(59.17 %) of the pomegranate growers had less than 2.50 acres, followed by 31.67 per cent of the pomegranate growers had 2.51 to 10.00 acres, 8.33 per cent had 2.5 acres, 5.01 to 10.00 acres. Only 0.83 per cent of them had more than 25 acres area and none of the pomegranate growers had 10-25 acres of area under pomegranate cultivation. Semi medium land holdings might be the reason for the smaller area of less than 2.50 acres area under pomegranate cultivation.

**Pomegranate farming experience :**

An observation of the data presented in Table 1 depicted that majority (70.84 %) of the pomegranate growers had 1-5 years, 20.83 per cent of them had 6-10 years, 3.33 per cent of them had 16-20 years and equal per cent (02.50 %) of them had 11-15 years and more than 20 years of pomegranate farming experience. Age and education might be the reasons for the lower range of pomegranate farming experience.

**Annual income :**

The results from Table 1 indicated that half of the pomegranate growers (50.00%) belonged to low income level category, followed by 35.83 per cent of them belonged to high income level category and 14.17 per cent of them belonged to medium level income category. Low annual income level of pomegranate growers might be due to the economic vulnerability of pomegranate growers, market access and pricing of pomegranate, farm size and productivity and also due to changes in climatic and environmental factors.

**Extension participation :**

It is evident from Table 2 that 37.50 per cent of the growers had medium level of extension participation, followed by 35.83 per cent of them had medium level of extension participation and 26.67 per cent of them had high level of extension participation. The mean extension participation of the pomegranate growers is 11.40. Lack of awareness about the extension activities conducted in their area, lack of time, tedious field work, lack of

Table 2: Distribution of pomegranate farmers according to extension participation			(n=120)
Category	f	%	
Low (<9.90)	45	37.50	
Medium (9.90–12.92)	43	35.83	
High (>12.92)	32	26.67	
Mean=11.40		SD=3.56	

f = Frequency

% = Percentage

curiosity and low educational level of the growers might be the reasons for the low participation in extension activities.

#### Extension contact :

Table 3 revealed that more than half (54.17%) of the pomegranate growers had low extension contact, 25.00 per cent of them had medium and 20.83 per cent of them had high extension contact. The reasons for more than half of them belonging to low extension contact category may be due to infrequent access to agricultural resources, training, and support that could potentially affect their knowledge and adoption of best practices.

#### Mass media exposure :

The data from Table 4 revealed that two fifth (40.00 %) of the pomegranate growers had low mass media

exposure, 39.17 per cent of them had high and 20.83 per cent of them had medium mass media exposure, respectively.

#### Social media utilization :

From Table 5, it is evident that 45.83 per cent of the pomegranate growers had low social media utilization, 33.33 per cent of them had high and 20.84 per cent of them had medium social media utilization since majority of them had less internet access, network connectivity and most of them used basic key pad phones compared to android phones since they lacked in internet connectivity and were incompatible for social media usage.

#### Innovativeness :

Table 6 revealed that nearly two fifth (40.83 %) of the pomegranate growers had medium level of

Table 3: Distribution of pomegranate farmers according to extension contact			(n=120)
Category	f	%	
Low (<2.1)	65	54.17	
Medium (2.1-4)	30	25.00	
High (>4)	25	20.83	
Mean=3		SD=2.2	
f = Frequency		% = Percentage	

Table 4 : Distribution of pomegranate farmers according to mass media exposure			(n=120)
Category	f	%	
Low (<7.09)	48	40.00	
Medium (7.09-13.55)	25	20.83	
High (>13.55)	47	39.17	
Mean=10.32		SD=7.60	
f = Frequency		% = Percentage	

Table 5: Distribution of pomegranate farmers according to social media utilization			(n=120)
Category	f	%	
Low (<4.57)	55	45.83	
Medium (4.57-12.00)	25	20.84	
High (>12.00)	40	33.33	
Mean=8.74		SD=8.28	
f = Frequency		% = Percentage	

Table 6: Distribution of pomegranate farmers according to their innovativeness			(n=120)
Category	f	%	
Low (<14.34)	37	30.83	
Medium (14.34-17.10)	49	40.83	
High (>17.10)	34	28.34	
Mean=15.72		SD=3.24	
f = Frequency		% = Percentage	

Table 7: Distribution of pomegranate farmers according to their economic motivation			(n=120)
Category	f	%	
Low (<20.59)	38	31.67	
Medium (20.59-23.46)	45	37.50	
High (>23.53)	37	30.83	
Mean=22.03		SD=3.37	
f = Frequency		% = Percentage	

Table 8: Distribution of pomegranate farmers according to their market orientation			(n=120)
Category	f	%	
Low (<15.78)	40	33.34	
Medium (15.78-19.57)	43	35.83	
High (>19.57)	37	30.83	
Mean=17.68		SD=4.46	
f = Frequency		% = Percentage	

innovativeness, 30.83 per cent of them had low level and 28.34 per cent of them had low and high level of innovativeness, respectively. This might be due to majority of them belonging to the medium age group, education levels of the pomegranate growers, size of the land holdings and area under pomegranate cultivation, annual income level of the growers, extent of mass media exposure and social media utilization.

#### Economic motivation :

It could be observed from Table 7 that 37.50 per cent of the pomegranate growers had medium, 31.67 per cent of them had low and 30.83 per cent of the pomegranate growers had high levels of economic motivation, respectively.

#### Market orientation :

Table 8 revealed that 35.84 per cent of pomegranate growers had medium level of market orientation, 33.33 per cent of them had low and 30.83 per cent of them had high level of market orientation, respectively.

#### Conclusion :

As regard with the profile characteristics of pomegranate growers, majority (65.00 %) of them were middle aged, 33.33 per cent of them were illiterates, large majority of them (86.66 %) belonged to medium sized family, 32.50 per cent of them belonged to semi medium farmer category, more than half (59.17 %) of them had less than 2.50 acre area, that majority (70.84 %) of the pomegranate growers had 1-5 years of pomegranate farming experience, half of the pomegranate growers

(50.00%) belonged to low income level category, 37.50 per cent of them had medium level of extension participation, more than half (54.17%) of them had low extension contact, two fifth (40.00 %) of them had low mass media exposure, that 45.83 per cent of them had low social media utilization, two fifth (40.83 %) of them had medium level of innovativeness, 37.50 per cent of the pomegranate growers had medium level of economic motivation and 35.84 per cent of them had medium level of market orientation.

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