

## **Socio Economics Profile of Chilli Growers in District Baramulla (J&K)**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Author QJAP designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors TA, IR and SK managed the analyses of the study. Author SK managed the literature searches. All authors read and approved the final manuscript.*

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### **ABSTRACT**

The study was carried out during 2018-2019 to know the socio-economic status of the chilli growers, marketing of chilli and constraints faced by the chilli growers in district Baramulla. A sample size of 50 chilli growers was selected randomly from 5 villages of agricultural zone Nehalpora of district Baramulla. The study reveals that majority (60%) of the respondents were in the age group (35-53 yrs). It was found that 30 per cent of the respondents were illiterate. About 45% of the respondents were having farming as the main occupation. As far as annual income is concerned, major source of income of the growers was from agriculture (72 lakhs), followed by horticulture (39.70 lakhs) and vegetables (3.23 lakhs). About 45% of the area was irrigated in the village, 40.87% under orchards, 9.48% under chilli. Majority of the growers used television (74%) regularly as a source of mass media followed by other means of media like internet (30%). Majority (84%) of the growers had occasional extension contacts. About 56 per cent of the respondents

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were having medium level of scientific orientation followed by low (30%) and high (14%). As far as the marketing of the chilli is concerned, majority of the growers (56%) sold their crop in local market while only (44%) of the growers sold their crop at a distant market. The reason might be that the growers preferred their local market rather than going for distant places because of the less time available. The major resource constraints in chilli production technology as mentioned by the respondents were unavailability of improved seeds of vegetables (90%) high cost of pesticides (70%), scattered and small size land holdings (60%) and lack of irrigation facilities (40%) Poor marketing facilities (80%), distantly located markets (30%), bad condition of roads (90%), non-remunerative prices (84%) and lack of transportation facilities and high transportation charges (18%) were the major marketing constraints. 90 per cent of the farmers had a constraint of Lack of training on scientific vegetable production technology and Non-availability of facilities of soil testing (80%), while as 40 per cent had mentioned Lack of knowledge about improved varieties, seed rate and sowing time as other constraint faced.

*Keywords: Chilli; socio economic status; marketing; constraints.*

## 1. INTRODUCTION

Chilli (*Capsicum annuum* L.) is one of the most important commercial vegetable cum spice crop grown almost in all parts of temperate, tropical and subtropical regions of the world. There are more than 400 different varieties of chillies found all over the world. It is also called as hot pepper, cayenne pepper, sweet pepper, bell pepper etc. It's botanical name is "Capsicum annuum" and it belongs to the family solanaceae. Chilli occupies an important place in human diet. It is an indispensable item in the kitchen, as it is consumed daily as a condiment in one form or the other. Among the spices consumed per head, dried Chilli fruits constitute a major share. Currently, Chillies are used throughout the world as a spice and also in the making of beverages and medicines. If some varieties of Chillies are famous for red colour because of the pigment 'capsanthin,' others are known for biting pungency attributed to 'capsaicin'. India is the only country which is rich in many varieties with different quality factors. Chillies are rich in vitamins, especially in vitamin A and C. They are also packed with potassium, magnesium and iron. Chillies have long been used for pain relief as they are known to inhibit pain messengers. It is also claimed that they have the power to boost immune system and lower cholesterol. It is universally called by different names such as Pimenton, Puvre de Guinee, Filfil Ahmar, Paprika, Spaanse Peper, Peperone, Pimento, Struchkovy pyeret, Togarashi, Hesiung Yali chiao, Lal-mirch, etc. [1]. In world Chilli is raised over an area of 2020 thousand ha with a production of 3762 thousand tonnes. In Asia, India is the world leader delete of chilli production followed by China, Thailand and Pakistan [2].

In India, chilli is grown over an area of 774.9 thousand ha with total production of 1492.10 thousand tonnes. Andhra Pradesh is the largest producer of chilli in India and contributes 26 percent of the total area under chilli followed by Maharashtra (15%), Karnataka (11%) Orissa (11%) and Madhya Pradesh (7%). The remaining states contributed (22%) of the total area under chillies. Indian chillies are considered to be world famous for two important commercial qualities viz., colour and pungency [3].

In Jammu and Kashmir, the total area under vegetable crops is about 62.63 thousand ha with production of 1386.37 metric tonnes. The area under chilli crop in Kashmir valley is about 3080 ha with production of 48072 metric tonnes [4].

Baramulla is the most important chilli growing district of Kasmir valley due to favourable climatic conditions and availability of proper marketing facilities as compared to other districts. The Agricultural Sub-Division Pattan of District Baramulla has 43.79 acre of land under chilli and 91.69 acre under other vegetables crops [5].

Although, the demand of chilli is increasing for export and home consumption, but the present production and productivity of chilli in the country are very inadequate, being only about one-fourth to one-third of the requirement. In order to fulfill the demand of the people, it is essential that the production of chilli should be increased considerably. This can be achieved by increasing the present area under chilli and also by increasing the productivity per unit of area by adopting better and improved chilli production technology. The findings of this study would be beneficial in formulating strategies to overcome

the constraints for no or low adoption of recommended cultivation practices.

## 2. MATERIALS AND METHODS

The study was conducted during 2018-2019 in district Baramulla of Jammu and Kashmir union territory, which was purposively selected because of the large area of the district under chilli cultivation. Among the different agricultural subdivisions of the district one agricultural subdivision i.e. Pattan was selected randomly. Agricultural sub division Pattan consists of 4 Agricultural zones and among these zones only one Agricultural zone viz., Nahalpora having maximum area and production under chill cultivation was selected purposively. Agricultural zone Nahalpora consists of 31 villages, out of which only 5 villages were selected randomly. A Comprehensive list of chilli growers with minimum of 0.50 kanal (8 kanals= 1 acre) of land under chilli cultivation was sought from the concerned Agriculture Extension office and a sample of 10 chilli growers was randomly taken from each village, thus making a sample size of 50 chilli growers from 5 villages. The data was collected with the help of self administered interview schedule. The respondents were interviewed by the researcher in their natural settings. The questions devised for the study were asked to the respondents in Kashmiri language. After the collection of the data it was coded and analysed with help of appropriate statistical tools.

## 3. RESULTS AND DISCUSSION

The data in (Table 1) indicated that majority (60%) of the respondents were in age group of (35-53 years), 16 per cent were in age group of (20-35 years) and 30 per cent were in age group of (53-70 years). The probable reason for this trend might be that young farmers were less interested to continue farming as their fore fathers did and they had shifted to other commercial enterprises. The findings are in line with the earlier findings [6].

The data in (Table 1) revealed that majority 30 per cent of the growers were illiterate, 25 per cent had primary education and middle education each followed by 10 per cent with high school and 10 per cent had graduate level of education. It could be inferred that lack of good educational facilities in the rural areas and unavoidable necessity in the family to help their parents may be the reason for poor formal schooling among

the growers. The findings are in line with the other findings [7].

The data in the (Table 1) further shows that, majority (45.34%) household size involved were male followed by female 31.05% and children 23.60% It could be inferred that the society is male dominated having more male members followed by the female and children respectively.

It is evident from the (Table 1) That, the main occupation in the village was farming (45%) followed by business (35%) and service (20%) respectively. The findings of the study clearly stated that majority of the growers depend for their livelihood on agriculture followed by agriculture along with business and agriculture along with service respectively.

Regarding the operational land holding of the selected villages it could be inferred from the study that 45 percent of the area was under irrigated land in these villages, 41 per cent under orchards, 9.48 per cent under chilli followed by 4.37 per cent under vegetables. The reason might be that the paddy is the staple food of Kashmir and its surplus fetches good amount of money because of which farmers mostly prefer paddy cultivation.

It is clear that major income of the growers was from agriculture (72 lakhs) followed by horticulture (39.70 lakhs) and vegetables (3.23 lakhs) The probable reason might be that majority of the growers depend on agriculture for their livelihood and most of the growers are medium educated. The above findings got support from the studies of [8].

The figures in the table depicted that majority 75 per cent of the growers had high mass media exposure, and 25% had medium mass media exposure and television as a source of mass media followed by other means of media like internet 30 per cent. The results of the study are in conformity with the study of [9].

The growers used radio and television as mass media which acts as an important source of information for getting scientific knowledge for cultivation of vegetables. The probable reason may be that television is the common and popular source of information and permits retention of knowledge for longer period, as it has both audio and visual effects. These findings are in conformity with the findings of [10] and [11].

**Table 1. Socio-economic profile of respondents**

n=50			
S. No.	Particulars.	Percentage	Frequency
1	Age.		
	i. Young(<35 years)	16	8
	ii. Middle Aged(35-53 yrs)	60	30
	iii. Old Aged (>53 yrs)	24	12
2	Education		
	i. Illiterate	30	15
	ii. Primary	24	12
	iii. Middle	26	13
	iv. High school.	10	5
	v. 10+2	0	0
	vi. Graduate	10	5
	vii. Above graduate	0	0
3	Family Size		
	i. Male	45.34	180
	ii. Female	31.05	125
	iii. Children	23.60	95
	iv. Total	100	400
4	Occupation		
	i. Agriculture	46	23
	ii. Agriculture + Business	34	17
	iii. Agriculture +Service	20	10
5	Operational Land Holdings		
	i. Irrigated	45.25	310
	ii. Orchards	40.80	280
	iii. Vegetables	4.37	30
	iv. Chilli	9.48	65
	v. Total	100	685
6	Annual Income		
	i. Agriculture	62.64	180 lakhs
	ii. Horticulture	34.54	99.25 lakhs
	iii. Vegetables	2.80	8.07 lakhs
	iv. Total	100	287.32 lakhs
7	Mass Media Exposure		
	i. Low	0	0
	ii. Medium	26	13
	iii. High	74	37
8	Extension Contacts		
	i. Low	16	8
	ii. Medium	84	42
	iii. High	0	0
9	Scientific Orientaion		
	i. Low	30	15
	ii. Medium	56	28
	iii. High	14	7

The data presented in Table 1 reveals that majority (84%) of the growers had medium extension contacts, 16 per cent had high level of extension contact. The predominance of growers having occasional level of extension contact may be due to the reason that the study area was far from the institutions like Agriculture departments and KVKs.

The data in Table 1 reveals that majority (56%) of the growers were having medium level of scientific orientation followed by low (30%) and high (14%) level of scientific orientation respectively. This may be due to the reason that majority of the growers were educated up to middle level and wanted to have knowledge regarding the scientific ways of cultivation. The

results of this study got support from the results of [12].

The data in (Table 2) reveals that majority of the growers (55%) sold their crop in local market while only 45 per cent of the growers sold their crop at a distant market. The reason might be that the growers preferred their local market rather than going for distant places because of the less time available.

The data in the (Table 1) reveals that 25% of the growers had 10 km market away from their field,

10% had 2 km away, 20% had 3km away and 8km away each while only 10% had only 1 km away from their field.

The produce was mostly marketed through Tata mobiles followed by hand cart and trucks respectively. The reason might be that the Tata mobiles contain optimum produce and is a good source of transport and can easily run through narrow lanes in villages

Majority (90%) of the farmers mentioned unavailability of the improved seeds of chilli as

**Table 2. Marketing of chilli by the respondents**

n=50			
1	<b>Marketing.</b>		
	i. Local market	56	28
	ii. Distant Market	44	22
2	<b>Distance from Market</b>		
	• 1-3 km	16	8
	• 3-6 km	34	17
	• 6-9 km	26	13
	• >9 km	24	12
3	<b>Modes of Transport of produce to Market</b>		
	• Trucks	12	6
	• Tata Mobiles	34	17
	• Load Carriers	40	20
	• Any other (hand carts)	14	7

**Table 3. Constrains faced by chilli growers in marketing**

n=50			
S.No	Items	Yes	No
<b>Resource Constraints</b>			
1	Unavailability of improved seeds of vegetables	45	5
2	High cost Of pesticides	35	15
3	Lack of irrigation facilities	20	30
4	Scattered and small size land holding	30	20
<b>Marketing Constraints</b>			
1	Poor marketing facilities.	40	10
2	Markets are distantly located	15	35
3	Approach roads are not in good conditions	45	5
4	Non Remunerative price	42	8
5	Lack of transportation facilities and high charges.	9	41
<b>Technological Constrants</b>			
1	Lack of knowledge about improved varieties, seed rate and sowing time	20	30
2	Lack of training of scientific vegetable production technology	45	5
3	Non-availability of facilities of soil testing	40	10

severe constraint in chilli production the other constraints were high cost of pesticides (70%), Scattered land Holdings (60%). Only 40 percent of the chilli growers perceived lack of irrigation facilities as a constraint in chilli production. the fields of majority(60%) of the growers had easy availability of irrigation water through small canals.

The data in (Table 3) reveals the major constraints in marketing of chilli were poor marketing facilities (80%), distantly located markets (30%), bad condition of approach roads (90%) non remunerative prices (84%) and lack of transportation facilities (18%). The reason might be the poor outreach of the horticulture planning and marketing department in these villages.

As far as the technological Constraints are concerned about 90 per cent and 80 per cent of the farmers had a constraint of Lack of training of scientific vegetable production technology and Non-availability of facilities of soil testing respectively. While as 40 per cent had mentioned Lack of knowledge about improved varieties, seed rate and sowing time as other constraint faced. The reason might be that the farmers didn't visit to the extension personnel's.

#### 4. CONCLUSION

The study revealed that Majority (60%) of the growers were middle aged illiterate (30%), the population of males (45.34)% was higher than that of females 31.05% in the selected villages. The main occupation of the villagers was farming (45%). The major portion of land of the villages was under field crops(45%), orchards (41%) the chilli was cultivated on 9.48 per cent of the cultivable land. Major income of the growers was from agriculture (72 lakhs) followed by horticulture (39.70 lakhs) and vegetables (3.23 lakhs). Majority of the growers had high (74%) mass media exposure and the major sources of information were Radio (70%) and television (74%) while as about 30 percent of the users also used internet. Majority (85%) of the growers had occasional extension contacts, medium (56%) level of scientific orientation followed by low (30%) and high (14%) level of scientific orientation respectively. Majority of the growers (56%) sold their crop in local market while only (4%) of the growers sold their crop at a distant market. Majority of the growers (34%) had their chilli fields around 3-6 kms away from the market. The reason might be that the farmers didn't visit to the extension personnel's. The

major resource constraints in chilli production technology as mentioned by the respondents were unavailability of improved seeds of vegetables (90%) high cost of pesticides (70%), scattered and small size land holdings (60%) and lack of irrigation facilities (40%) Poor marketing facilities (80%), distantly located markets (30%), bad condition of roads (90%), non-remunerative prices (84%) and lack of transportation facilities and high transportation charges (18%) were the major marketing constraints. 90 per cent of the farmers had a constraint of Lack of training on scientific vegetable production technology and Non-availability of facilities of soil testing (80%), while as 40 per cent had mentioned Lack of knowledge about improved varieties, seed rate and sowing time as other constraint faced. The reason might be that the farmers didn't visit to the extension personnel's and were not having enough exposure and knowledge to act on their own.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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