

Original Research Article

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## Communication and Psychological Behavior of the Pigeon Pea Growers in Chitrakoot District, India

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### ABSTRACT

#### Keywords

Socio-economic profile, Knowledge and adoption, Awareness, Communication technology etc.

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This study was conducted in Karwi block of Chitrakoot district by conducting personal interview with 100 respondents which were selected through random sampling technique. There were 65 percent respondents found in middle age group and observed to be literate (67%), belonging to backward caste (70%), residing in nuclear families (63%). The maximum respondents (63 %) were having small farmers land holding and agriculture was observed as main occupations (88%). The 55 per cent respondents were found such who had family annual income Rs. 26001-79000. The mobile (100%) were observed as main communication media. A maximum number of respondents were found in low level of scientific orientation (41%), and medium level of economic motivation and risk orientation with 80 per cent and 55 per cent respectively.

### Introduction

Red gram has wide adaptability and low input requirements mostly grown in *kharif*. The heavy shedding of leaves adds considerable organic matter to the soil. Pigeonpea has multiple uses such as tender green seeds used as vegetables, stem and roots as fuel wood, crushed dry seeds as animal feed and to make huts, baskets etc. besides its main use as dhal. It has been recognized as a valuable source of protein (17.9 to 24.39/100g) particularly in the developing countries where majority of the population depends on the vegetarian foods for meeting its dietary requirements (Ali and Kumar, 2005). It has nitrogen fixing

ability, and also play an important role in sustaining intensive agriculture by improving physical chemical and biological properties of soil and are considered excellent crop for diversification of cereal based cropping system.

Pigeonpea is one of the important pulse crops of India and 91% of the world's pigeonpea is produced in India. Myanmar is the second largest producer of pigeon pea with 15% of global production followed by lesser producers Kenya, Uganda, and Malawi. The productivity of pigeonpea in India (7.99q/ha)

is far below the average productivity (8.48 q/ha) of world. In India, it occupies an area of about 4.09 million hectares producing 3.27 million tonnes with an average productivity of 7.99 q/hectare (Anonymous 2010).

Pigeonpea is the 4<sup>th</sup> ranked pulse crop in the world. In India, pigeonpea is the 2<sup>nd</sup> most important pulse crop after chickpea. Besides India, it is also grown in south East Asia, Africa, and America. In India, production of pigeonpea was 3.17mt, on area of 3.88 m ha. with yield of 817 kg/ha. (Anonymous, 2014). In India, the crop is mainly grown in Andhra Pradesh, Bihar, Uttar Pradesh, Karnataka, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Tamilnadu. In Uttar Pradesh, it is grown 311.0 thousand ha area producing 325.0 thousand tons, with an average yield of 1040 kg/ha (Anonymous, 2014).

Pigeonpea in India is the most important pulse crop which is cultivated in the gross cropped area (3.58 million hectare) under pulses providing 20% of the national pulse production (2.51 million tonnes). Besides being rich source of protein, they are also important for sustainable agriculture, enriching the soil through biological nitrogen fixation. Pigeonpea is one of the most important legumes grown in Uttar Pradesh which has 10.61% area (0.38 million hectare) and 13.87% in terms of production (0.38 million tons) in the country. The productivity of pigeon pea in Uttar Pradesh is 9.82 q/ha, which is lower than the average yield of adjoining states viz., Jharkhand (15.11 q/ha) and Bihar (10.64 q/ha) (Ahlawat *et al*, 2005). In Chitrakoot district during 2013-14 the pigeonpea had an area 12830 hectare with the production of 5828 tonnes and productivity 4.5 q/ha.

The lower productivity of pigeonpea is due to many factors, among which the loss due to severe incidence of pests and diseases is predominant in recent years. In India,

pigeonpea is proved to be attacked by more than 200 species of insect pests, among which the podborer (*Helicoverpa armigera*) causes enormous losses. Moreover, wilt is also a serious disease of this crop which causes mortality of seedlings upto 15-25% in normal years and upto 50% in epiphytotic situations (Butler, 1906). This may result in complete loss of crop, if incidence occurs before podding. Thus, the cultivation of pigeonpea mainly depends upon the management of pests, diseases, timely availability of inputs particularly quality seed material and introduction of improved package of practices which are the major factors for successful production of this crop otherwise they are referred to as main constraints in increasing the productivity.

## **Materials and Methods**

The study was conducted in purposively selected Chitrakoot district of Uttar Pradesh. There are five community development blocks in this district out of that is one block Karwi was selected purposively. This block has (94) village panchyats from which four were selected purposively, and then the list of total farmers was prepared for each selected villages. Thereafter 100 farmers were selected as respondents though random sampling techniques with respect to the categories of the farmers for each selected village. Data were collected with the help of semi-structured interview schedule specially developed on standard scales with some modifications in the light of objectives and analyzed with suitable statistical methods respectively.

## **Results and Discussion**

### **Communication media possession**

Table 5.1.15 indicated that the majority of respondents (100%) were observed possessing mobile phone with them. The rest of

respondents who had other communication media were in descending order as T.V. (95%), radio (82%), newspaper (72%), D.T.H. (32%), dish cable (27%), dish antenna (27%), internet (12%), laptop (5%), telephone (2%), respectively. Thus, it can be inferred that mobile phone and T.V. were main sources for getting information's and recreation purposes.

**Social participation**

The Table-1 indicates that the overwhelming majority *i.e.* 47% of the respondents participates in one organization followed by 42% respondents did not take participation in any organization, 11% respondents in two organizations, respectively. It means that the respondents did have more interest in participating in the social organization.

**Extension contact**

The Table 2 shows the extent of contact of respondents with different information sources as used by them for general information as well as about various crops cultivation. The information sources were

categorized into three categories namely, formal sources, informal sources and mass media exposure to find out the extent of contact of respondents. In case of formal sources namely, gram pradhan, K.S, V.D.O, A.D.O, B.D.O, seed fertilizer storage, co-operative societies, mandi samite. got rank orders as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> respectively.

So far as informal sources like family members, neighbour, friends, relatives, local leaders and progressive farmers, got rank orders as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> respectively.

So far as mass media sources like were found in descending *i.e.* mobile, television, newspaper, radio, exhibition, posters, internet, circular letters, demonstration got rank orders as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> respectively.

The overall mean of scores for formal, informal and mass media exposure to be 67.14%.

**Table.1** Distribution of the respondents on the basis of communication media possession

N=100

S.No.	Communication media	Respondents	
		Number	Percentage
1.	Radio	82	82.00
2.	T.V.	95	95.00
3.	Telephone	02	02.00
4.	Mobile phone	100	100.00
5.	D.T.H.	32	32.00
6.	Dish antenna	27	27.00
7.	Dish cable	27	27.00
8.	News paper	72	72.00
9.	Internet	12	12.00
10.	Laptop	05	05.00

**Note:** More than one items have been shown by respondents, hence the total percentage of all items would be more than 100.

**Table.2** Distribution of the respondents on the basis of social participation

N=100

S. No.	Participation	Respondents	
		Number	Percentage
1.	No participation	42	42.00
2.	Participation in one organization	47	47.00
3.	Participation in two organization	11	11.00
	<b>Total</b>	<b>100</b>	<b>100.00</b>

**Table.3** Distribution of respondents on the basis of Extension contact

N=100

S. No.	Source of information	Respondents	
		Mean Score value	Ranks
<b>A.</b>	<b>Formal source</b>		
1.	B.D.O.	02.14	V
2.	A.D.Os.	02.54	IV
3.	V.D.Os.	02.69	III
4.	Kisan shayak	03.45	II
5.	Gram Pradhan	04.74	I
6.	Co-operative society	00.54	VII
7.	Mandi samitti	00.40	VIII
8.	Seed & Ferti. Store	02.14	VI
	<b>Average</b>	<b>01.828</b>	
<b>B.</b>	<b>Informal Source</b>		
1.	Family Members	06.00	I
2.	Neighbours	05.88	II
3.	Friends	04.16	III
4.	Relatives	02.17	V
5.	Local Leaders	02.09	VI
6.	Progressive Farmers	02.25	IV
	<b>Average</b>	<b>03.75</b>	
<b>C.</b>	<b>Mass media source</b>		
1.	Radio	05.76	IV
2.	T.V.	05.88	II
3.	News paper	05.82	III
4.	Circular letters	00.06	VIII
5.	Poster	00.37	VI
6.	Mobiles	06.00	I
7.	Demonstration	00.06	IX
8.	Exhibition	00.85	V
9.	Internet	00.15	VII
	<b>Average</b>	<b>01.55</b>	
	<b>Overall Average</b>	<b>02.37</b>	

**Table.4** Distribution of the respondents according to economic motivation

N=100

S. No.	Categories (score value)	Respondents	
		Number	Percentage
1.	Low (up to 23)	41	41.0
2.	Medium (24)	27	27.00
3.	High (25 and above)	32	32.00
	<b>Total</b>	<b>100</b>	<b>100.00</b>

Mean=23.82, S.D. =1.1838, Min. =21, Max. =26.

**Table.5** Distribution of the respondents on the basis of scientific orientation

N=100

S. No.	Categories (score value)	Respondents	
		Number	Percentage
1.	Low (up to 24)	10	10.00
2.	Medium (25-26)	80	80.00
3.	High (27 and above)	10	10.00
	<b>Total</b>	<b>100</b>	<b>100.00</b>

Mean=25.82, S.D. =1.0384, Min. =23, Max. =28.

**Table.6** Distribution of the respondents on the basis risk orientation

N=100

S. No.	Categories (score value)	Respondents	
		Number	Percentage
1.	Low (up to 22)	11	11.00
2.	Medium (23)	55	55.00
3.	High (24 and above)	34	34.00
	<b>Total</b>	<b>100</b>	<b>100.00</b>

Mean=23.43, S.D. =0.9770, Min. =22, Max. =26.

### **Economic motivation**

The Table 3 shows that the majority 41% of the respondents had low level of economic motivation followed by high 32% and medium 27% level economic motivation, respectively. On the basis of data, it can be said that there were no much difference found in economics motivation among respondents. The mean score for economic motivation were observed 23.82.

### **Scientific orientation**

It is apparent from the Table 4 that the maximum number of respondents 80% were

found having medium level of scientific orientation while 10% each, respondents were found in the categories of high and low levels of scientific orientation each, respectively.

The average mean of scores of scientific orientation observed to be 25.82. It can be concluded that most of the respondents were found possessing medium level of orientation towards scientific knowledge.

### **Risk orientation**

It is apparent from the Table 5 that the maximum number of respondents 55% were found having medium level of risk orientation

while 34% and 11% respondents were found in the categories of high and low levels of risk orientation, respectively.

The average mean of scores of risk orientation observed to be 23.43. It can be concluded that most of the respondents were found possessing medium level of orientation towards scientific knowledge.

On the basis of the findings, it may be concluded that majority of the respondents were gram pradhan followed by kisan sahayak in case of formal sources of information, family members followed by neighbors in case of informal sources and mobiles followed by T.V. in case of mass media were found important sources of information about pigeonpea growing production. The overall mean of scores for formal, informal and mass media exposure was found to be 2.37, which may be considered as good contact with information sources. The low level of scientific orientation and middle level of economic motivation and risk orientation was found of the respondents.

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