



Extent of Extension Contact of Lentil Growers: An Empirical Study in Mokama Taal Area of Bihar

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ABSTRACT

Lentil crop plays a major role in the food and nutritional security of millions of people and also immensely contribute in crop rotation, enhancing soil fertility and providing other environmental services in production systems. Lentil is one of the important pulse crops in Bihar. This research work was carried out in Mokama Taal area of Bihar. Mokama Taal area is considered 'pulse bowl' of Bihar. Socio-economic profile and extension contact of the lentil grower were assessed. The result revealed that most of the farmers belonged to middle age group, having more than 10 years of farming experiences and 60 per cent farmers' annual income was more than Rs.5 lakhs. The lentil growers had more extension contact to television, poster, kisan salahkar, input dealers and progressive farmers and received information on weather, insect pest management and market.

KEYWORD

Farming Experience, Kisan Salakar, Television, Input Dealers

INTRODUCTION

Lentil crop plays a major role in the food and nutritional security of millions, particularly among low-income Asian families, because of the high protein content of its seed. It also plays an important role as a rotation crop, enhancing soil fertility and providing other environmental services in production systems (Erskine *et al.* 2011). Pulses grown in Bihar are gram, lentil, khesari, pea, summer moong (Rabi pulse); tur, moong, urad, ghaghra, kulthi (Kharif pulse). Mokama Taal is considered as the 'pulse bowl' of Bihar. Pulse is grown in this Taal area after the receding of the water of Ganga river. Lentil cultivation in Taal area involves large number of players *viz.* farmers, input dealers, daily wage labourer, government extension personnel *etc.* In lentil cultivation public and private extension agencies are directly involved. Demonstration of improved pulse technologies followed by intensive awareness campaign eventually lead to adoption of generated pulse technologies among farmers to accelerate crop intensification and productivity enhancement (Kumari *et al.* 2007).

Family members and neighbours were informal sources of information (Tripathi *et al.*, 2006) of pulse growers, however farmers also faced difficulties regarding weak extension support, lack of conviction and awareness about technologies (Pal *et al.*, 2014) in adoption of pulse crop production technologies. In general context, in the past decades in India, the coverage of, access to, and quality of information provided to marginalized and poor farmers was uneven. There is an increasing need to work in partnership and to share knowledge and skills in order to provide locally relevant services that meet the information needs of marginal and smallholder farmers in India (Glendenning *et al.* 2010). The farm technologies adoption in agriculture and allied sectors were predictive by socio-personal variables (Panda, 2014). Under this backdrop this research work was carried out with the objectives to study the socio-economic profile and extension contact of the lentil grower of Mokama Taal Area of Bihar.

MATERIAL AND METHODS

Mokama Taal is a group of seven Taals covering an area of 1,062 square kilometres and the width varying from 6.5 to 17.6 kilometres within the districts of Patna and Lakhisarai of Bihar state between latitudes 24°10' N to 25°30' N and longitudes 84°40' E to 86°30' E. It is located right bank of the river Ganga. The two blocks *i.e.* Mokama and Barahiya were purposively selected from Patna and Lakhisari districts respectively. From each block two villages were selected randomly. From each village 30 lentil growers were selected randomly, hence the sample size was 120. The data collection schedule was pretested over 10 non-respondents farmers and pertinent changes were made. Although, data collection schedule was prepared in English, but during the interview it was translated into local language. The data was collected from the farmers during the period of February 2017 to April 2017.

RESULTS AND DISCUSSIONS

Socio-economic profile of the lentil growers

From the study it is noted that 60 per cent farmers belonged to middle age categories, followed by 30.83 per cent belonged to old age group, however only 09.17 per cent farmers were young age group. It is also noted that 45.83 per cent respondents belonged to general categories and most of the farmers were male (90%).

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Table 1: Frequency, per cent, mean and standard deviation of socio-personal profile of lentil growers

n=120

Socio-economic profiles	Categories	Frequency	Per cent	Cumulative Per cent	Mean	Std. Deviation
Age group (in Year)	Young (up to 35 years)	11	09.17	09.17	49.15	11.10
	Middle (36-55years)	72	60.00	69.17		
	Old (>55 years)	37	30.83	100.00		
Caste categories	General	55	45.83	45.83		
	Other Backward Class(OBC)	29	24.17	70.00		
	Scheduled Caste(SC)	36	30.00	100.00		
Gender	Male	108	90.00	90.00		
	Female	12	10.00	100.00		
Education	Illiterate	10	08.33	08.33		
	Functional literacy	17	14.17	22.50		
Qualification	Up to primary	33	27.50	50.00		
	Up to secondary	29	24.17	74.17		
	Up to higher secondary	19	15.83	90.00		
Farming experiences	Graduate or above	12	10.00	100.00	14.13	4.66
	Up to 10 years	35	29.16	29.16		
	>10 years to ≤ 15 years	41	34.16	63.32		
Family type	>15 years	44	36.68	100.00		
	Nuclear	48	40.00	40.00		
Family Size	Joint	72	60.00	100.00	10.42	5.01
	Up to 5	32	26.67	26.67		
Annual income	More than 5	88	73.33	100.00		
	Less than ₹ 1 lakh	2	1.67	1.67		
	₹ > 2 to ≤ 3lakhs	9	7.50	9.17		
	₹ >3 to ≤ 4lakhs	11	9.17	18.34		
	₹ >4 to ≤ 5 lakhs	26	21.66	40.00		
Categories of farmers based on their 1 and holding	More than ₹ 5 lakhs	72	60.00	100.00		
	Marginal(< 1 hectare)	6	5.00	5.00		
	Small(>1 to ≤ 2 hectares)	15	12.50	17.50		
	Semi-medium(>2 to ≤ 4 hectares)	20	16.67	34.17		
	Medium(>4 to ≤ 10 hectares)	34	28.33	62.50		
Large(>10 hectares)	45	37.50	100.00			

Level of education plays important role in technologies

adoption. From this study it is noted that 27.50 per cent farmers education level is upto primary, followed by upto

Table 2: Distribution of the respondents as per their contact to mass media

n=120

Sl. No.	Types of Mass media	Most often	Often	Sometime	Rarely	Not at all	Total
1.	Radio	5.83% (7)	52.50% (63)	25.00% (30)	11.67% (14)	5.00% (6)	100% (120)
2.	Television	25.83% (31)	36.67% (44)	30.00% (36)	7.5% (9)	0% (0)	100% (120)
3.	Newspaper	21.66% (26)	35.00% (42)	22.67% (32)	12.50% (15)	4.16% (5)	100% (120)

(Figures in the Parenthesis indicate frequency)

secondary(24.17), up to higher secondary (15.83%).It is also interesting to note that cumulatively 70.84% farmers had more than 10 years of farming experiences with mean of 14.13 and SD of 4.66. Most of the farmers were from joint family (60.00%) with more than 5 members per family (73.33%). It is also noted that 60 per cent farmers' yearly income was more than Rs.5 lakhsas 37.50 per cent and 28.33 per cent farmers belonged to large and medium categories of farmers respectively (Table 1). Mass media play pivotal role in the process of transfer of agricultural technology. It is noted that television is the major sources of information to the farmers, followed by newspaper and radio (Table 2).

Lentil growers come in contact with number of extension personnel for getting information on production technologies. Perusal of the table revealed that amongst the different extension personnel, the respondents had maximum contact with Kisan Salahkar and it was ranked first followed by Scientists of Dalhan Research Centre (Rank II), Agricultural-Coordinator(Rank III), Subject Matter Specialist

(Rank IV) and Assistant Technology Officer (Rank V) respectively and rest is as shown in table (Table 3).

Table 3: Distribution of the respondents as per their contact to public extension personnel

Sl. No.	Public Extension personnel	Weighted Mean	Rank
1.	Kisan Salahkar	3.40	I
2.	Scientists of Dalhan Research Centre	3.28	II
3.	Agricultural -coordinator	2.74	III
4.	Subject Matter Specialist	2.19	IV
5.	Assistant Technology Officer	2.18	V
6.	Block Technology Manager	2.10	VI
7.	Block Agriculture Officer	2.07	VII
8.	Technical Assistant	2.01	VIII
9.	University Scientist (BAU,Sabour/Dr. RCAU,Pusa	1.83	IX

Table 4: Distribution of the respondents as per their contact to private extension personnel

Sl. No.	Private extension personnel	Most often	Often	Sometime	Rarely	Not at all	Total
1	Input Dealers	37.50% (45)	33.33% (40)	26.67% (32)	0 (0)	2.50% (3)	100% (120)
2	Company Representatives	30.83% (37)	31.67% (38)	16.67% (20)	13.33% (16)	7.5% (9)	100% (120)

Figures in the parenthesis indicate frequency

Input dealers are important private extension personnel for the farmers. In the rural area farmers purchases seed, fertilizer, and pesticide from the input dealers. Company representative of pesticide, fertilizer and seed also support farmers in lentil cultivation technology transfer. It is noted that 37.50 per cent and 33.33 per cent farmers had contact with input dealers and company representatives most often.

Table5: Distribution of the respondents as per their sources of information(personal localite) on lentil cultivation

Sl. No.	Sources	Weighted mean	Rank
1.	Progressive farmers	3.850	I
2.	Neighbour	3.725	II
3.	Friends	3.491	III
4.	Family members	2.975	IV

Progressive farmers, neighbours, friends and family members are important sources of information to the farmers. From the table, it is noted that progressive farmers is the most important source of information to the respondents and it was rank I, followed by neighbor (Rank II),friends (Rank III) and family members (Rank IV).

Extension literatures (leaflet, folder, bulletin, poster and Kisan Diary) are important sources of information to lentil growers. From the study it is noted that poster was most important extension literature in relation to the contact of respondents to it and it was ranked I, followed by folder (Rank II) and Kisan Diary (Rank III)

Table 6: Distribution of the respondents as per their contact to extension literatures

Sl. No.	Types of extension literatures	Weighted Mean	Rank
1.	Poster	2.73	I
2.	Folder	2.53	II
3.	Kisan Diary	2.51	III
4.	Leaflet	2.42	IV
5.	Bulletin	2.40	V

In present context mobile SMS is an important Information and Communication Technolgy(ICT) tools to support farmers with useful information in real time basis. Accordingly it is noted that 46.67 per cent respondents received weather information weekly, 75 per cent respondents received insect pest management information monthly and 51.67 per cent respondents received market information fortnightly.

CONCLUSION

Lentil crop plays a major role in the food and nutritional security of millions people and maintaining soil health. Lentil is grown in Mokama Taal area of Bihar after the receding of the water of Ganga river. Lentil cultivation in Taal area involves large number of players *viz.* farmers, input dealers, daily wage labourer, government extension personnel *etc.* In lentil cultivation public and private extension agencies are directly involved. From this study this can be concluded that altogether large and medium categories of farmers are maximum, so, modern lentil cultivation technologies must be introduced. Television is the major source of information to

Table 7: Distribution of the respondents as per their contact to agro advisory mobile SMS

n=120

Sl. No.	Information types	Weekly	Fortnightly	Monthly	Total
1.	Weather information	46.67% (56)	27.50% (33)	25.83% (31)	100% (120)
2.	Insect Pest Management	24.00% (5)	20.83% (25)	75.00% (90)	100% (120)
3.	Market information	5.83% (7)	51.67% (62)	42.50% (51)	100% (120)

(Figures in the Parenthesis indicate frequency)

the lentil growers, so, this mass media must be used for transfer of technologies to the farmers in more robustly and aptly. The lentil growers had more contact with Kisan Salahkar and scientists of Dalhan Research Centre. The

farmers had also more contact with progressive farmers and neighbour and they are also regularly getting weather information through mobile SMS. So, mobile SMS must be wisely used for technology transfer in lentil cultivation.

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