

## RESEARCH ARTICLE

## Communication behaviour of winter vegetable cultivators of Jorhat district of Assam

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### Abstract

The study was conducted in Jorhat district of Assam in 2011 with a view to evaluate the communication behaviour of winter vegetable cultivators of Jorhat. Purposive-cum random sampling technique was used for the selection of respondents to make a total sample size of 120 farmers. Data were collected adopting the personal interview technique administering a structured schedule. Relevant statistical tools viz. frequencies, percentage, mean, standard deviation, Karl Pearson's Correlation Coefficient, t-test and chi-square were employed to analyze the data. The study revealed that majority (69.17%) of the respondents were 34-55 years of age who had primary (19.17%) and high School (19.17%) level educational qualification and majority (80.83%) of respondents were male. Majority (79.16%) of respondents had medium level of mass media exposure, while (40%) of them had no training exposure. Most of the respondents had medium level of marketable surplus (70%), market intelligence (79.16%), risk preference (80%), scientific orientation (77.5%), economic motivation (68.33%) and marketing orientation (81.67%). The findings further revealed that majority (70%) of respondents had medium level of communication behaviour.

**Keywords:** Communication behaviour, winter vegetable cultivators, mass media, marketable surplus.

### Introduction

Agriculture sector is important for the food and nutritional security of the nation and it remains principal source of livelihood for more than 58% of the population though its contribution to the national GDP has declined to 14.2% due to high growth experienced in industries and services sectors. India faces a greater challenge as compared to other countries, since with only 2.3% share in world's total land area; therefore it has to ensure food security of its population which is about 17.5% of world population (Annual report 2010-11, Ministry of Agriculture, Govt. of India). The socio-economic condition of Assam largely depends on its agricultural production. Assam is predominantly rural and economy primarily agrarian in nature with almost 70% of the population directly dependent on Agriculture as a source of income and another 15% of the population dependent on allied activities for living. In recent times, farmers are in a transition from being production-oriented to being market oriented and there has been a paradigm shift from production-led-extension to market-led-extension. To formulate effective market-led-extension strategies, it is essential to find out whether farmers are undergoing any change in their communication behaviour especially in terms of market related information or not. Murthy (1969) operationalized communication behaviour as the composite of score in respect of awareness, comprehension, attitude and adoption. Patnaik (1975) showed that farmers with 10 acres above land handling had command over about 67% of the marketable surplus of agricultural products in Indian Agriculture, while the poor peasant with up to 2.5 acres of holding had only 5.4% of that marketable surplus.

Ambastha and Singh (1978) found out extension personnel evaluated the information by discussing with progressive farmers and judging in the light of local socio-economic and agro-climatic situation. Mishra (1978) reported that out of eighteen sources of agricultural information radio (50%) was the most utilized source after village level extension workers (54%).

Study on "Communication behaviour of extension personnel in progressive and non-progressive district of Assam" was done by Bordoloi *et al.* (2003) and the study revealed that about 50 per cent of the respondents in both progressive and non progressive districts had 'medium' level of communication behaviour followed by 'high' (36.73%) and 'low' (10.20%). Comparatively more respondents (37.50%) in progressive district showed 'high' level of communication behaviour than non-progressive district (28.00%). Hema (2003) found in her research that nearly half (48.33%) of the respondents possessed high level of risk bearing ability. A study on communication behaviour of extension personnel which was conducted in North Karnataka namely Dharwad, Belgaum, Gadag and Haveri by Jahagirdar and Balasubramanya (2010) found that majority (69%) of the government extension personnel were found in 'medium communication behaviour' category and very less percentage of government extension personnel (14%) were found in 'high communication behaviour' category and is need to increase the communication behaviour level from 'medium' to 'high' by imparting suitable training programmes in the field of "Latest communication technologies, communication skills and computer training".

Research gap exists to find out the communication behaviour of farmers, particularly in terms of market related information in order to provide effective extension service. Therefore, study on "Communication behaviour of farmers in Jorhat district of Assam with special reference to market related information" was undertaken with the following objectives:

1. To study the communication behaviour of winter vegetable cultivators in terms of information input and information processing
2. To find out the information utilization pattern of winter vegetable cultivators in relation to marketing of their produce.

## Materials and methods

**Study area and sample population:** The study was conducted in two Agricultural Development Office circles viz., Madhapur and Alengmora of Jorhat district of Assam. From each, Agricultural Development Office circle, two villages were randomly selected namely Phalengichuk village and Lalung village from Madhapur and Hakaikhangia village, Upordeuri village from Alengmora were selected. In total 120 respondents, 30 from each village were selected for the study.

**Study parameters:** Marketable surplus and risk preference, economic motivation, marketing orientation which is the main components of communication behaviour were considered as the main parameters for the study. The risk preference, economic motivation, marketing orientation scales were used in this study developed by Supe (1969), Supe (1969) and Samanta (1977). To determine communication behaviour, three dimensions i.e. information input, information processing and information output were used in this study. Finally respondents were categorized on the basis of total scores as follows:

Low = below (Mean-S.D); Medium = in between (Mean  $\pm$  S.D); High = above (Mean + S.D).

**Statistical analysis:** Statistical analysis was decided according to the objectives of the present study. Simple frequencies, percentage, mean and standard deviation were calculated along with Karl Pearson's coefficient of correlation, chi-square and t-test were used for analysis (Gupta and Kapoor, 2011).

## Results and discussion

**Communication behaviour of winter vegetable cultivators:** In this study, 3 dimensions of communication behaviour, viz., information input, information processing and information output were included in the scale to measure communication behaviour of the cultivators. From Table 1, it was found that 70% of the respondents had medium level of communication behaviour followed by low and high communication behaviour i.e. 16.66% and 13.33%. According to Table 2, it was observed that about 83.33% of respondents had medium information input followed by 10.84% and 5.835% i.e. high and low information input.

Table 1. Frequency and percentage distribution of the respondents according to their communication behaviour.

Category	Frequency	Percentage
Low (<66)	20	16.67
Medium (66-95)	84	70
High (>95)	16	13.33

Table 2. Frequency and percentage distribution of the respondents according to their information input.

Information input	Frequency	Percentage
Low	7	5.83
Medium	100	83.33
High	13	10.84

Table 3. Frequency and percentage distribution of the respondents according to their information processing.

Information processing	Frequency	Percentage
Low	30	25
Medium	73	60.83
High	17	14.17

Table 4. Frequency and percentage distribution of the respondents according to their information output.

Information output	Frequency	Percentage
Low	27	22.5
Medium	74	61.67
High	19	15.83

Table 5. Frequency and percentage distribution of the respondents according to their marketable surplus.

Marketable surplus (q/ha)	Frequency	Percentage
Low (<485)	19	15.83
Medium (485-662)	84	70
High (>662)	17	14.17

Table 6. Frequency and percentage distribution of the respondents according to their risk preference.

Risk preference	Frequency	Percentage
Low (<23)	15	12.5
Medium (23-34)	96	80
High (>34)	9	7.5

About 60.83% of the respondents had medium level of information processing (60.83%) followed by low (25%) and high (14.17%) (Table 3). Table 4 showed that highest percentage (61.67%) of respondents were having medium level of information output, whereas 22.5% and 15.83% of respondents were having low and high level of information output. From Table 5, in case of marketable surplus, 70% of the respondents were having medium level of marketable surplus (485-662 q/ha) followed by 15.83% of respondents having low marketable surplus (<485 q/ha) and 14.17% with high marketable surplus (>662 q/ha). Since, soil fertility of the respondents' cultivable land area was relatively less, productivity was also less. Hence, marketable surplus of the majority of the sampled respondents was medium level. Table 6 revealed that 80% of respondents had medium risk preference, 12.5% and 7.5% of respondents were having low and high risk preference. Since, 80% of respondents keep day to day marketing related information from different information sources.



Table 7. Relationship and association of socio-personnel and psychological characteristics of respondents with communication behaviour.

S. No.	Independent variables	'r' Value	't' Value
1.	Age	0.038	0.413
2.	Academic qualification	0.093	1.014
3.	Proximity to urban area		
	a) Distance from village to District Head Quarter	-0.367	4.285**
	b) Distance to preferred Market	0.106	1.157
4.	Annual income	0.344	3.979**
5.	Farming experience		
	a) Total experience	-0.046	0.500
	b) Winter vegetable cultivator	-0.017	0.184
6.	Mass media	0.375	4.394**
7.	Training exposure	0.141	1.547
8.	Marketable surplus	0.360	4.191**
9.	Market intelligence	0.429	5.158**
10.	Risk preference	0.128	1.401
11.	Scientific orientation	-0.084	0.915
12.	Economic motivation	-0.028	0.304
13.	Market orientation	0.145	1.591

\*\* Correlation is significant at the 0.01 level.

Table 7 showed that distance from village to District Head Quarter and communication behaviour of respondents had negative significant relationship that means if the distance from village to District Head Quarter is increased then communication behaviour will be decreased and vice-versa. It also revealed that relationship of annual income, mass media, market intelligence, marketable surplus, market intelligence with communication behaviour of respondents had positive significant relationship which indicate that if the annual income, mass media, market intelligence, marketable surplus, market intelligence is higher than communication behaviour will be higher and vice-versa. Table 8 revealed that in case of gender of the respondents is not significantly associated with communication behaviour

**Conclusion**

Since many middle aged people are engaged in winter vegetable cultivation with considerably lower educational qualification, they need to be empowered to utilize their potential with proper mass media and training support. As farmers have medium level of marketable surplus as well market intelligence with medium level farming experience, regular technical advice or training on improved technique can help to enhance their production thereby enhancing their income. The medium level of risk preference and scientific orientation as well as economic motivation amongst the respondents implies that commercial winter cultivation as an enterprise needs to promote with a greater thrust. It is important to promote market led extension support so that more winter vegetable cultivator can improve their communication behaviour to be commercially engaged and be economically benefitted in gaining higher profits.

Table 8. Association between the independent variables with the communication behaviour.

Independent variable	$\chi^2$	Degrees of freedom	Table value
Gender	42.1	48	65.171

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