AN ANALYSIS OF SOCIO-ECONOMIC AND PSYCHOLOGICAL TRAITS OF FINGER MILLETS GROWERS IN ADOPTION OF RECOMMENDED FINGER MILLET PRODUCTION TECHNOLOGY AMONG THE TIRBAL FARMERS OF BASTAR DISTRICT OF CHHATTISGARH

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Abstracts : This study was conducted in three selected block of Bastar district of Chhattisgarh. A total of 150 respondents were randomly selected from the each selected blocks for the study. The present study was undertaken to assess the socio-personal and socio-economic and psychological traits of finger millet growers in adoption of recommended finger millet production technology. The data collection was done by the use of pre-tested interview scheduled and through personal interview. Data were analyzed with help of suitable statistical analysis. The study showed that majority (74%) of the respondents belonged to middle age group (34 to 56 years), illiterate (33.34%) and leaved in joint family (63.33%) with membership in one organization. Majority (54%) of the respondents were medium farmers (2.1 to 4 ha) and the surviving with their low annual income (Up to Rs 20,000). Majority (96%) of the selected respondents had acquired credit for finger millet production.

Keywords: Finger millets, Psychological traits, Socio-personal traits, Socio-economic traits, Tribal farmers

INTRODUCTION

Small millets are unique to Indian agriculture even though their contribution is only about 2.50 per cent to the grain production in the country. The importance lies in the ecological niche they occupy where no other food crop can be profitably grown (Gowda *et al.*, 1997). Small millets are the traditional crop, agronomically more adapted to impoverished soils. The important small millets grown in India are finger millet, kodo millet, little millet, foxtail millet, barnyard millet and common millet. Millet grains have been the food for the traditional consumers and population of lower economic strata in India and Africa and as a feed ingredient in many developed countries (Malleshi, 1997). Millets are important food grains in the diets of a large section of population in India and Africa.

Finger millet ranks third in importance among millet in country in area and production after sorghum and pearl millet. The area under this crop is around 2 million hectares which is 7.5 per cent of the total millets area, but its contribution (2.5 to 2.6 million tones) to total millet production is around 13 per cent. Finger millet produce is mostly consumed at the home /village level. As a result the true value of crop has not been appreciated. Marketing channels are very poorly developed. The minimum support price announced regularly by the government does not help the farmers as the authorized agencies intervene in the market and produce.

Despite constraints in production, finger millet will continue to have a significant role in the food economy of the people who grow and consume it increasing production will have to be achieved to ensure regional food security. Utilization as food and feeds will continue to be of particular importance in areas of its production (Seetharam, 1997).

A number of traditional food preparations are made out of Ragi grain in rural India. Ragi for meal is consumed mainly in the form of dumpling (mudde), unleavened bread (roti) and porridge (ganji). In addition to the above, there are at least 80 different types of recipes made out of Ragi by both rural and urban commodities. Most popular among them being dosa, uppita, several snack preparations made out of popped grain (hurihittu), and many other bakery products including Ragi bread, bun and biscuits.

Composite flour can also be prepared by mixing Ragi flour with wheat flour / rice flour/ sorghum flour. It is possible to obtain different blends to meet the needs taking into account economic, nutritional and organoleptic considerations. Special blends could be made by mixing malted Ragi flour with green gram flour to be used as weaning food. There are surveys made to indicate that rice eaters have lesser micronutrient in their diet compared to Ragi consumer (M.P, 1997). Chhattisgarh has sizeable area under minor millets 2, 04,261 hectare and production is 39,301 metric tones. The minor millets play a vital role in the food basket of tribals of Chhattisgarh state.

Keeping this in view a study was conducted to know the socio-personal and socio-economic profile/ traits and socio-psychological traits of finger millet growers in the adopted blocks.

MATERIAL AND METHOD

This study was conducted with randomly selected finger millet grower's of three blocks (i.e. Jagdalpur, Pharasgoan, and Makdi) located in Bastar district of Chhattisgarh (India). These three blocks were

selected out of 12 blocks because maximum finger millet growers are found in the district. From each of these selected blocks 50 tribal farmers were selected for the study. Thus in this way a total of 150 respondents were selected as respondents for study. Four socio-personal traits (namely age, education, type of family and social participation), three socio-economic traits of finger millet growers (namely size of land holdings, credit acquisition and annual income) and two psychological traits of finger millet growers (namely innovative proneness and scientific orientation) were selected for analysis. For assessing level of innovative proneness and level of scientific orientation of finger millet growers a points continuum scale adopted i.e. "Low", "Medium" and "High" with the score 1, 2 and 3, respectively. The data were collected through personal interview with the help of structured interview schedule. Collected data were analyzed and presented in frequency, percentage, mean and standard deviation.

RESULT AND DISCUSSION

Socio-personal traits

Age, education, type of family and social participation were considered as socio-personal traits of the respondents. These traits are analyzed and presented in table 1.

Table 1: Distribution of respondents according to their socio-personal traits

(n =150)

S. No.	Traits	Frequency	Percentage
1.	**Age**		
	Young (up to 34 years)	22	14.66
	Middle (34 to 56 years)	111	74.00
	Old (above 56 years)	17	11.34
	Total	**150**	**100**
$\overline{X}$ **= 45.37,**		**S.D = 11.17**	
2.	**Education**		
	Illiterate	50	33.34
	Primary school	46	30.67
	Middle school	29	19.34
	High school	07	04.66
	Higher Secondary school	16	10.66
	College and above	02	01.33
3.	**Type of family**		
	Nuclear family	55	36.67
	Joint family	95	63.33
4.	**Social participation**		
	No membership	49	32.67
	Membership in one organization	62	41.33
	Membership in more than one organization	35	23.33
	Executive / officer bearer	04	02.67

1. Age

It is observed from the table that the majority of the respondents (74.00 %) belonged to middle age group (34 to 56 year), 14.66 per cent respondents were under young age group (up to 34 year) and 11.34 per cent respondents were of old age group (above 56 years). Thus, it may be concluded that the maximum finger millet growers were belonging to middle age group (34 to 56 year). This finding is in conformity to the findings reported by Kazan and Agunga (1997), Deshmukh *et al.* (2007), Singh *et al.* (2007) and Dhruw (2008).

2. Education

Education builds the ability of an individual to improve knowledge understand and utilize the things in a better way, hence assessment of respondent's education level must be done. The data in table 01 shows that the 33.34 per cent of the respondents were illiterate followed by 30.67 per cent respondents were found under the category of up to primary school. Whereas, 19.34 per cent respondents were educated up to middle school and 10.66 per cent had been educated up to higher secondary level about 5.0 per cent respondents had been educated up to high school and only 01.33 per cent respondents were educated up to college and above.

The maximum number of finger millet growers were illiterate and have been educated up to primary school level. It may be because of the fact that in most of the tribal villages there are no school and only a few of the villages have the school which is up to primary level. On account of this, finger millet growers had not acquired the education or had only primary level education. Thus the results clearly

indicate that the majority of respondents were either illiterate or had been educated up to primary school standard.

3. **Type of family**

It had been found that the majority of respondents (63.33%) were residing in joint family system; however 36.67 per cent of the respondents prefer to live in nuclear family system in the study area. (Fig.4.3). Almost similar findings were also observed by Manker, *et al.* 2000 and Singh, *et al.* 2007.

4. ***Social participation***

Social participation gives us an idea about the respondent's participation in social activities. As regards to social participation, maximum number of respondents (41.33%) have membership in one organization followed by 23.33 per cent respondents had membership in more than one organization and only 02.67 per cent respondent, were found to be in office bearer's category. However 32.67 per cent of the respondents where having no membership in any organization. This finding is similar to the findings of Dhruw (2008) and Yadav (2008).

Socio- economic traits

The independent variables i.e., size of land holding, credit acquisition and annual income were considered as socio-economic traits of respondents.

1. Size of land holding

Table 2. Distribution of respondents according to their size of land holding

(n =150)

S. No.	Size of land holding	Frequency	Percentage
1	Marginal (up to 1 ha)	10	06.67
2	Small (1.1 to 2 ha)	48	32.00
3	Medium (2.1 to 4 ha)	81	54.00
4	Large (above 4.1 ha)	11	07.33
	Total	**150**	**100.00**

Table 2 indicates that the maximum number of the respondents (54.00%) had medium size of land holding (2.1 to 4 ha.), followed by 32.00 per cent who belonged under small size of land holdings category (1.1 to 2 ha.), whereas 07.33 per cent of the respondents were having large size of land holding (above 4.1 ha.) and only 06.67 per cent respondents were marginal (up to 1ha.) farmers. It could be concluded from the table that maximum number of respondents belonged to medium size of land holding category. This finding finds support from the work of Rajni (2006), Dhruw (2008), Patel (2008) and Yadav (2008).

2. Credit acquisition

Table 3. Distribution of respondents according to their credit acquisition

(n =150)

S. No.	Particulars	Frequency	Percentage
Credit acquisition			
(i)	Not acquired	06	04.00
(ii)	Acquired	144	96.00
Duration of credit (n = 144)			
(i)	Short term credit	76	52.78
(ii)	Mid-term credit	43	29.86
(iii)	Long term credit	25	17.36
Availability of credits (n = 144)			
(i)	Easy	110	76.38
(ii)	Difficult	34	23.62
Source of credit *			
(i)	Cooperative society	125	83.33
(ii)	Nationalized bank	74	49.33
(iii)	Money lenders	12	08.00
(iv)	Friends / Neighbours/ Relative / Others	05	03.33

*Frequency based on multiple responses.

Table 3 revealed that majority of the respondents (96.00%) acquired credit from various agencies, whereas, only 04.00 per cent respondents had not acquired the credit facilities from the agencies providing the credit. Out of those respondents who had acquired credit, the majority of the respondents

(52.78%) had taken the short-term credit followed by mid- term credit (29.86%) and long-term credit (17.36%). It can be concluded that the maximum respondents had acquired short term credit; the reason may be behind that they could be repay it just after harvesting the crop. As for as similar results had been observed by Patel (2008). Obtaining the credit from the various credit agencies, it has been confirmed from the collected data that the maximum number of the respondents (83.33%) had acquired credit from the cooperative society followed by 49.33 per cent of respondents who had taken credit from nationalized bank while 08.00 per cent respondents had taken credit from money lender. Only 03.33 per cent of respondent had taken credit from friends, neighbours and relatives. This table also revealed that the respondents were aware about the facilities provided by nationalized banks and co-operative societies. Out of total 144 respondents, who had acquired credit 76.38 per cent respondents were of the view that they had acquired credit easily from the credit agencies, whereas 23.62 per cent respondents reported that they faced difficulty in acquiring credit because of illiteracy and cumbersome official procedure of credit agencies for obtaining the credit.

3. Annual income

Table 4. Distribution of respondents according to their annual income

(n =150)

S. No.	Annual income (Rs)	Frequency	Percentage
1.	Up to Rs. 20,000	67	44.67
2.	Rs. 20,001 to 40,000	27	18.00
3.	Rs. 40,001 to 60,000	16	10.66
4.	Above Rs. 60,000	40	26.67
	Total	**150**	**100.00**

The distribution of the respondents according to their annual income is presented in table 04. From the data we can infer that the 44.67 per cent respondents were having their annual income up to Rs. 20,000 followed by 26.67 per cent of respondents who had their annual income above Rs. 60,000 and 18.00 percent respondents had annual income between Rs. 20,001 to 40,000. Whereas only 10.66 per cent respondents had annual income between Rs.40, 001 to 60,000 .The result clearly indicates that maximum number of the respondents belonged to less than Rs. 20,000 thousand annual income groups which comes below the poverty line. This finding is similar to the findings of Dhruw (2008).

Psychological traits

1. **Innovative proneness**

Table 5. Distribution of respondents according to their innovative proneness

(n=150)

S. No.	Categories	Beneficiaries	
		Frequency	Percentage
1	Low level of innovative proneness (up to 19 score)	14	09.33
2	Medium level of innovative proneness (20-23 score)	117	78.00
3	High level of innovative proneness (above 23 score)	19	12.67
	Total	**150**	**100.00**

$\overline{X}$ = 21.44 S.D. = 2.41

The result in table 05 clearly indicates that 78.00 percent respondents had medium level innovative proneness and 12.67 per cent had high innovative proneness towards recommended Finger millet production technology. While only 09.33 per cent respondent had low innovative proneness towards recommended finger millet production technology. Thus it may be concluded that majority of the respondents 78.00 per cent had medium level of innovative proneness toward recommended finger millet production technology. This finding finds support from the work of Dhruw (2008).

2. **Scientific-orientation**

Table 6. Distribution of respondents according to their scientific orientation

(n = 150)

S.N.	Categories	Frequency	Percent
1.	Low scientific orientation (up to 16 score)	29	19.33
2.	Medium scientific orientation (17– 25 score)	107	71.33
3.	High scientific orientation (above 25 score)	14	09.34
	Total	**150**	**100**

$\overline{X}$= 20.9 S.D.= 4.18

The results in the Table 06 shows that 71.33 per cent of the respondents had medium level of scientific–orientation, followed by 19.33 per cent respondents who had low level of scientific–orientation while, 09.34 per cent of respondents had high level of scientific-orientation regarding finger millet production technology. It can be concluded that most of the respondents 71.33 per cent had medium scientific-orientation toward finger millet production technology. This finding finds support from the work of Sudha (1997) and Patel (2008).

CONCLUSION

From the above findings it can be concluded that the majority (74.00 %) of the respondents were found in middle age group (34 to 56 year), maximum (33.34%) number of the respondents were found to be illiterate and leaves in joint family, maximum (54.00%) number of the respondents had medium size of land holding (2 to 4 ha.), 83.33 per cent number respondents had taken loan from co operative societies, maximum (44.67%) number of the respondents were having annual income up to Rs. 20,000. Majority (78.00%) number of respondents had medium level of innovative proneness; maximum (71.33%) number of respondents had medium scientific orientation about recommended finger millet production technology.

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