

## Tribal Farmers' Attitude towards Adoption of Recommended Rapeseed-Mustard Technology

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### ABSTRACT

*Improved technology mainly involves new practices such as high yielding varieties, balanced doses of fertilizers, new method of tillage and other cultural practices. The present investigation was conducted to find out the tribal farmers' attitude towards adoption of recommended technology of Rapeseed-Mustard production to increase productivity in Ranchi district of Jharkhand. A total of 100 respondents were randomly selected from four villages (Rukka and Getalsud from Ormajhi Block and Chipra and Panchdiha from Nagri Block) were purposively selected on the basis of the highest percentage area under Rapeseed-Mustard. Twenty five farmer respondents were selected randomly from each of the four villages. Results revealed that majority of the respondents had favourable attitude followed by neutral attitude and negative attitude.*

**Key words:** Adoption; High yielding varieties; Farmer's Attitude;

Oilseed crops play the second important role in the Indian agricultural economy next to food grains in terms of area and production. Among all oilseeds, Rapeseed-Mustard has significant utility in the dietary habit of human beings. India is the third largest rapeseed-mustard producer in the world after China and Canada with 12 per cent of world's total production (2006-07). Rapeseed-mustard crops in India are grown in diverse agro climatic conditions ranging from north-eastern/ north western hills to down south under irrigated/rainfed, timely/late sown, saline soils and mixed cropping. Indian mustard accounts for about 75-80% of the 6.6 million hectare under these crops in the country during 2013-14. The rapeseed-mustard production trends represent fluctuating scenario with an all time high production of 8.2 m t from 6.9 m ha acreage during 2010-11. The yield levels also have been varying from 1001 (2002-03) to 1185 kg/ha (2010-11) during the past eight years. (Source: <http://www.drmr.res.in>)

Attitude as a component of human behavior is the pre-requisite for any action, which plays a dominant role in adoption of new scientific technologies. Therefore, an investigation was undertaken with the objectives to

determine the attitude of tribal farmers towards improved technologies of rapeseed-mustard cultivation and to find out the association between profile characteristics of the respondents and their attitude scores.

### METHODOLOGY

*Eagly and Chaiken, (1998)* defined attitude as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. Individuals might hold multiple attitudes about an object, accessing different ones at different points in time (*Wilson, 1998*). The attitude of an individual varies significantly when he is working in a group. Before an individual adopts a new practice, he/she must possess favourable attitude towards it. Attitudes are relatively stable and once adopted, can provide a long-term effect (*Olgyaiova et al., 2005*). It was assumed that by changing the attitude of farmers, it would improve their performance in adoption. A Likert type-scale was developed, which consisted of 10 items. Data were solicited from 100 respondents (tribal rapeseed-mustard growers selected from four villages, namely Rukka and Getalsud from Ormajhi block and Chipra and Panchdiha

from Nagri block of Ranchi district) on a 5 point continuum, namely, Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree with the weights of 5, 4, 3, 2 and 1 for positive statements and 1, 2, 3, 4 and 5 for negative statements respectively. The data were collected with the help of well structured interview schedule and analyzed with the help of frequency, average, percentage, standard deviation and correlation coefficient.

## RESULTS AND DISCUSSION

Attitude in this study was operationalised as the positive or negative mental predisposition of respondents towards the improved rapeseed-mustard production technologies. The overall scale of the respondents reflecting the degree of attitude was found out by taking the arithmetic mean of scores given to the 10 statements by the respondents. On the basis of their attitude scores, the respondents were classified into three groups, with the help of mean (40.44) and standard deviation (3.59) i.e. favorable (>44.03), neutral (36.85 - 44.03) and unfavorable (>36.85) towards Rapeseed-mustard production technologies. The data have been presented in Table 1.

**Table 1: Frequency distribution of respondents according to their attitude category-**

Attitude Category	No. (%)
Unfavorable (<36.85)	12 (12)
Neutral(36.85-44.03)	40 (40)
Favorable (>44.03)	48 (48)

Table 1 indicated that 48 per cent of the rapeseed-mustard growers had favorable attitude towards improved rapeseed-mustard production technologies and about 40 per cent respondents had neutral attitudes followed by unfavorable attitudes (about 12%). The finding is conformity with the findings of *Sharma et.al, 2011* who also found that most of the beneficiary respondents had their attitude in positive direction towards Front Line Demonstration (FLDs) on mustard. Furthermore *Prabhakar et.al (2011)* found that majority of the demonstrating farmers did have the most favorable attitude towards the rapeseed and mustard production technology as compared to the non-demonstrating farmers. Attitude has played a significant role in gaining the knowledge and accepted the rapeseed and mustard production technology disseminated through Front Line Demonstration programme.

*Association between selected characteristics of the respondents and their attitude scores:* The findings are presented in Table 2.

**Table 2. Coefficient of correlation between selected characteristics of rapeseed-mustard growers and their attitude scores**

Variables	correlation coefficient (r)
Age	-0.256*
Education	0.263**
Caste	0.198*
Size of holding	0.216*
Family size	0.098 <sup>NS</sup>
Social participation	0.237*
Socio-economic status	0.201*
Annual family income	0.242*
Innovation proneness	0.214*
Economic motivation	0.199*
Risk orientation	0.231*

\*Significant at 5% level; \*\*Significant at 1% level  
NS Non significant

Table 2 revealed that education, caste, size of holding, social participation, socio-economic status and annual family income were positively and significantly correlated with attitude scores towards improved rapeseed-mustard production technology. The table further shows that age was also found to be significantly associated but in negative direction with the attitude of the respondents. Negative and significant association between age and attitude score indicated that relatively the elderly respondents had neutral to unfavorable attitude scores towards improved Rapeseed-Mustard production technologies. This might be due to the fact that the older age people are generally tradition bound and conservative.

Education was found to be positively and significantly associated with the attitude scores. Education usually changes the outlook of a person which helps in changing the attitude. Similarly caste status of the respondents also influenced the attitude significantly. Positive and significant associations of size of holding, social participation and socio-economic status with the attitude scores have also been reported by *Kumar (1993)*. The rational analysis of the study conducted by *Prabhakar et.al, 2011* showed that out of eight independent variables, as many as four variables namely education, cropping intensity, communication behavior and innovation proneness was found to be significantly correlated with the attitude scores.

## CONCLUSION

Majority of the respondents had favourable attitude towards improved rapeseed-mustard technology followed by neutral attitude. Favourable attitude boost up the rate

of adoption of recommended rapeseed-mustard production technologies. Positive mindset supplements in adopting the practices earlier than a negative attitude especially possessed by laggards.

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