

# PROBLEMS IN ADOPTION OF RECOMMENDED FINGER MILLET PRODUCTION TECHNOLOGY AMONG THE TRIBAL FARMER'S OF CHHATTISGARH

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**Abstract :** This study was conducted on 150 tribal farmers who were selected from three blocks of Bastar district of Chhattisgarh state to ascertain the constraints in adoption recommended finger millet production technology. The study reveals that the majority (82.67%) of the respondents had reported lack of marketing facilities for selling of their produce as the major problem faced by them, followed by lack of training facilities regarding finger millets production technology, less contact with extension officers, non-availability of information sources in proper time for finger millet production, etc. Majority of the respondents (76.66%) suggested that the marketability of finger millet may be increased by promoting the nutritional value and exploiting the export potential. About 65 per cent respondents suggested that the finger millet growers may be motivated by persistent efforts of extension personnel like RAO's, ADO's, SMS, etc. to adopt advanced finger millet production technology by demonstrating the proven benefits of finger millet production.

**Keywords :** Bastar district, Chhattisgarh, Constraints, Finger millet production, Suggestions, 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. Millets have formed staple food since ancient times throughout Asia (Kimata and Seetharam, 1997). Millets are nutritionally comparable or even superior to major cereals, especially with respect to specific nutrients. Carbohydrates comprises about 85 per cent of the edible portion of millets of which nearly 20 per cent of non starch polysaccharides, which are considered as dietary fibre ingredients. The protein content of millets range from 6 to 10 per cent and the finger millet protein is rich source of amino acids (4.2 g/16 g N). Among the cereal food grains, finger millet is the richest source of calcium (340 mg/100g).

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 tonnes) to total millet production is around 13 per cent. One of the striking features of finger millet is its resilience and ability to adjust to different agro-climates in terms of soil, rainfall and weather parameter. The ability is reflected in having highest productivity among millets (1327 kg/ha). Finger millet is rich in amino acid and richest sources of calcium among cereal and millet grains besides having higher amount of other minerals particularly

phosphorus and iron. Scope exists for modern processing for enlarging utility and value addition. 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).

Keeping in view the factual position the present study was undertaken with the following specific objectives:

1. To identify the various problems faced by the tribal farmers in adoption of recommended finger millet production technology, and
2. To obtain the suggestions from the tribal farmers pertaining to the problems faced by them regarding adoption of recommended finger millet production technology.

## MATERIAL AND METHOD

The present study was carried out in Bastar district of Chhattisgarh state. Bastar district is situated in south-eastern part of Chhattisgarh state. Bastar district has 12 blocks, out of which, 3 blocks were purposively selected namely Jagdalpur, Makdi and Pharasgoan, because finger millet crop is grown by the maximum number of farmers in these blocks. A list of farmers of the selected 3 blocks was prepared by taking the help of RAO's, ADO's and SADO's. From each

block 50 finger millet growing tribal farmers were selected randomly making a total of 150 respondents. Respondents were interviewed through personal interview with the help of well structured and pre-tested interview scheduled. Prior to interview, respondents were taken in to confidence by revealing the actual purpose of the study and full care was taken in to consideration and developed good rapport with them. Collected data were analyzed by the help

of various statistical tools i.e. frequency, percentage, etc.

## RESULT AND DISCUSSION

Problems in adoption of recommended finger millet production technology

**Table 1:** Problems faced by the finger millet growers in adoption of recommended finger millet production technology

(n=150)

S.No.	Problems	Frequency*	Percentage	Rank
1	Low level of education	70	46.67	VI
2	Small size of farm	50	33.33	VIII
3	Lack of adoption of improved technology in large scale	85	56.67	V
4	Non availability of loan in time	45	30.00	X
5	High interest rate	50	33.33	VIII
6	Lack of social motivation	30	20.00	XII
7	Not eager to adopt innovation	45	30.00	X
8	Lack of proper incentive	46	30.66	IX
9	Lack of training facilities	118	78.67	II
10	Less contact with extension officer	111	74.00	III
11	Non-availability of information sources in proper time	91	61.33	IV
12	Inadequate irrigation facilities	35	23.33	XI
13	Non-availability of agricultural inputs (Seed and Fertilizer etc.)	70	46.66	VI
14	Lack of information about recommended finger millet production technology	62	41.33	VII
15	Lack of marketing facility	124	82.67	I
16	Perceived new technology as costly	62	41.33	VII

\* Frequency based on multiple responses

Multiple responses were taken to ascertain the constraints faced by the finger millet growers in adoption of recommended finger millet production technology. Various constraints are presented in table 1 which indicates that the majority (82.67%) of the respondents had reported lack of marketing facilities for selling of their produce is the major problem faced by them, followed by lack of training facilities regarding finger millets production technology (78.67%) less contact with extension officers (74.00%), non-availability of information sources in proper time for finger millet production (61.33%), lack of adoption of improved technology in large scale (56.67%), low level of education and non-availability of agricultural inputs (46.66%) etc. are reported as major constraints by the respondents in adoption of recommended finger millet production technology in Chhattisgarh. Dhruw (2008), Patel (2008), Dilip Kumar (2010) had found almost similar findings in their study.

**Suggestions to overcome the Problems in adoption of recommended finger millet production technology:** It is observed from the data in table 2 that majority of the respondents (76.66%) suggested that the marketability of finger millet may be increased by promoting the nutritional value and exploiting the export potential. About 65 per cent respondents suggested that the finger millet growers may be motivated by persistent efforts of extension personnel like RAEO's, ADO's, SMS, *etc.* to adopt advanced finger millet production technology by demonstrating the proven benefits of finger millet production, (58.67%) timely training should be made available to the potential finger millet growers preferably in their own villages or on their farm, Policy should be made at government level to give basic education to illiterate farmers and secondary and higher education to primary educated farmers (52.67%).

**Table 2:** Suggestions of finger millet growers for solving the constraints faced by them during the adoption of recommended finger millet production technology (n=150)

S. N.	Suggestions	Frequency	Per cent	Rank
1	Policy should be made to give basic education to illiterate farmers and secondary and higher education to primary educated farmers.	79	52.67	IV
2	Land holdings of small sized farmers should be consolidated by suitable measures for optimization of operational land holding.	34	22.67	IX
3	Training should be organized on various subsidiary occupations like dairy, poultry, bee keeping, goatary etc. for increasing the income of farmers.	45	30.00	VII
4	Adequate institutional low interest loan availability may be provided.	40	26.66	VIII
5	The finger millet growers may be motivated by persistent efforts of extension personnel like RAEO's, ADO's, SMS <i>etc.</i> to adopt advanced finger millet production technology by demonstrating the proven benefits of finger millet production.	98	65.33	II
6	Timely training should be made available given to the potential finger millet growers preferably in their own villages or on their farm.	88	58.67	III
7	Information and published material should be made available to increase the knowledge of finger millet growers regarding improved production technology.	60	40.00	VI
8	Suitable high yielding varieties should be available for rainfed condition.	28	18.67	X
9	Inputs like improved seeds, fertilizer, pesticides <i>etc.</i> should be made available at subsidized rate on proper time at village level.	76	50.67	V
10	The marketability of finger millet may be increased by promoting the nutritional value and exploiting the export potential.	115	76.66	I

\* Frequency based on multiple responses

Inputs like improved seeds, fertilizer, pesticides *etc.* should be made available at subsidized rate on proper time at village level (50.67%), information and publicity material should be made available to increase the knowledge regarding improved production technology (40.00%), Training should be organized on various subsidiary occupations like dairy, poultry, bee-keeping, goatery *etc.* for increasing the income of farmers (30.00%), adequate institutional low interest loan availability may be provided (26.66%), Land holdings of small sized farmers should be consolidated by suitable measures for optimization of operational land holding (22.67%) and suitable high yielding varieties should be available for rainfed condition (18.67%) are the main suggestions given by the respondents. Dhruw (2008), Patel (2008), Dilip Kumar (2010) had found almost similar findings in their study.

## CONCLUSION

On the basis of findings of the study it may be concluded that the majority of the respondents had

reported lack of marketing facilities for selling of their produce as the major problem faced by them, followed by lack of training facilities regarding finger millets production technology, less contact with extension officers *etc.* were the other major constraints faced by the respondents in adoption of recommended finger millet production technology. Majority of the respondents (76.66%) suggested that the marketability of finger millet may be increased by promoting the nutritional value and exploiting the export potential.

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