

ASSOCIATION BETWEEN PERSONAL PROFILE AND ADOPTION OF IMPROVED *RABI* MAIZE PRODUCTION TECHNOLOGY BY TRIBAL *RABI* MAIZE GROWERS

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ABSTRACT

The present study was implemented to find out the association between personal profile and adoption of improved *Rabi* maize production technology by tribal *Rabi* maize growers. Dahod district was purposively selected for the study as it is one of the tribal district of Gujarat state and having the operational area under Krishi Vigyan Kendra, Anand Agricultural University, Dahod. Fifteen villages of Dahod district and ten tribal farmers from each village were selected randomly for the study. Thus, in all 150 tribal *Rabi* maize growers constituted the sample for the investigation. Out of different seven variables education, extension contact and mass media exposure had positive and significant correlation with adoption of improved *Rabi* maize production technology by tribal *Rabi* maize growers.

Keywords: association, adoption, *rabi* maize, technology

INTRODUCTION

Maize (*Zea mays* L) is one of the most versatile emerging crops having wider adaptability under varied agro-climatic conditions. Globally, maize is known as queen of cereals because it has the highest genetic yield potential among the cereals.

In India, maize is the third most important food crops after rice and wheat, area of maize is sticking to around 6-7 million hectare since last three decades, and the overall increase in maize is realized largely from increasing productivity in favourable ecologies. There are three distinct seasons for the cultivation of maize in India: *Kharif*, *Rabi* in Peninsular India and Bihar, and *Spring* in northern India. Maize is predominately a *Kharif* season crop but in past few years *Rabi* maize has gained a significant place in total maize production in India. *Rabi* maize is grown on an area of 1.2 million ha with the grain production of 5.08million tonnes, with an average productivity of 4.00 t/ha (Anonymous, 2012).

Cultivation of maize in winter season started in mid 60s in some pockets of Bihar and South India. Yield obtained during this season is invariably higher (>6 t/ha) than the *Kharif* season yield (2-2.5 t/ha.) due to long duration of growth and least infestation of pests and diseases. In Bihar, maize can be taken up in all the three seasons. In recent years, significant changes have occurred in maize production and utilization due to increasing commercial orientation of this

crop and rising demand for diversified end users, especially for feed and industrial uses. A sizable number of districts (110 districts), in the states of Andhra Pradesh, Karnataka, Bihar, Maharashtra, Uttar Pradesh, Madhya Pradesh, West Bengal, Orissa, Gujarat, Chhattisgarh and Tamil Nadu have potential for growing *Rabi* maize.

Farmers of Dahod district are cultivating *Rabi* maize with traditional practices. The area of *Rabi* maize crop 32,818 ha but the productivity of *Rabi* maize crop is very low (1875 kg/ha) as compare to its potentiality. So, there is a need to find out factors affecting the adoption of various technology applies by farmers in their fields. Therefore, the study entitled "Association between personal profile and adoption of improved *Rabi* maize production technology by tribal *Rabi* maize growers" was undertaken.

OBJECTIVES

- (1) To study profile of tribal *Rabi* maize growers
- (2) To study the adoption level of improved *Rabi* maize production technology by tribal *Rabi* maize growers
- (3) To find out the association between personal profile and adoption of improved *Rabi* maize production technology by tribal *Rabi* maize growers

METHODOLOGY

Fifteen villages of Dahod district and ten farmers

from each village were selected randomly for the study. Thus, in all 150 *Rabi* maize growers were constitutes the sample for this investigation. The data of this study were collected by arranging personal interview and survey schedule. The data was analyzed and interpreted in light of the objectives.

Profile of the tribal *Rabi* maize growers :

The respondents were categorized into different groups on the basis of their some of the important personal, social, economic, and communicational characteristics of the *Rabi* maize grower were selected and studied the findings are as follows.

(n=150)

Sr. No.	Characteristics	Group/categories	No.	Per cent
1	Age	Young age (Up to 30 year)	16	10.66
		Middle age (31 to 50 year)	96	64.00
		Old age (Above 50 year)	38	25.33
2	Level of education	Illiterate	42	28.00
		Primary education (Up to VII Std.)	36	24.00
		Secondary education (VIII to X Std.)	35	23.34
		Higher secondary education (XI to XII Std.)	26	17.33
		College and above education	11	7.33
3	Land holding	Marginal farmers (Up to 1.00 ha)	75	50.00
		Small farmers (1.01 to 2.00 ha)	62	41.34
		Medium farmers (2.01 to 4.00 ha)	11	07.33
		Large farmers (Above 4.00 ha)	02	01.33
4	Occupation	Farming only	16	10.77
		Farming + Animal husbandry	92	61.33
		Farming + Animal husbandry + Labour work	19	12.77
		Farming +Animal husbandry + Service	03	2.00
		Farming + Labour work	20	13.33
5	Annual income	Up to ₹ 50,000	83	55.34
		₹ 50,001 to 75,000	47	31.33
		₹ 75,001 to 1,00,000	15	10.00
		₹ 1,00,000 to above	05	3.33
6	Extension contact	Low (< 0.8 score)	27	18.00
		Medium (Between 0.8 to 3.74 score)	93	62.00
		High (>3.74 score)	30	20.00
7	Mass media exposure	Low (<1.30 score)	38	25.33
		Medium (Between 1.30 to 3.97 score)	81	54.00
		High (>3.97 score)	31	20.67

As per results majority of *Rabi* maize grower were in middle age, primary education to higher secondary education, marginal land holders, farming + animal husbandry as an occupation, annual income up to 50,000, medium extension contact and medium mass media exposure.

Adoption level of improved *Rabi* maize production

technology of tribal *Rabi* maize growers

The respondents were grouped according to their overall Adoption level on the basis of their degree of adoption in relation to all the aspect together. The respondents were categorized into five groups i.e. very high, high, medium, very low and low. The data in this regards are presented in Table 2.

Table 2 : Distribution of tribal Rabi maize growers according to their overall adoption level of improved Rabi maize production technology

n=150

Sr. No.	Technological gap	No.	Per cent
1	Very High (00.00 to 20.00 %)	00	00.00
2	High (20.01 to 40.00 %)	45	30.00
3	Medium (40.01 to 60.00 %)	64	42.67
4	Low (60.01 to 80.00 %)	40	26.67
5	Very Low (80.01 to 100.00 %)	01	00.67

Table 2 shows that more than two-fifth of the tribal Rabi maize growers (42.67 per cent) were fall under medium adoption level of improved Rabi maize production technology, followed by 30.00 per cent, 26.67 per cent and 0.67 per cent of tribal Rabi maize growers were categorised under high, low and very low of adoption level of improved Rabi maize production technology respectively. While none of them were in the category of very high adoption level of improved Rabi maize production technology group.

Association between personal profile and adoption of improved Rabi maize production technology by tribal Rabi maize growers

With a view to understand the nature of relationship between independent and dependent variable, the data were subjected to correlation co-efficient and presented in Table-3.

Table 3: Association between personal profile and adoption of improved Rabi maize production technology by tribal Rabi maize growers

(n=150)

Sr. No.	Independent variables	Correlation coefficient ('r' value)
1	Age	-0.180
2	Education	0.236*
3	Exension contact	0.313**
4	Mass media	0.208*
5	Land	0.120
6	Occupation	-0.235*
7	Income	0.022

*Significant at 0.05 level of significance

** Significant at 0.01 level of significance

NS = Non significant

The Table 3 clearly indicates that the personnel profile viz. education, extension contact and mass media

exposure had positive and significant correlation with adoption level of improved Rabi maize production technology by tribal Rabi maize growers. Age and adoption level had negative correlation with adoption level of improved Rabi maize production technology by tribal Rabi maize growers. Whereas land & Income had positive and non-significant, and occupation had negative and significant correlation with adoption level of improved Rabi maize production technology by tribal Rabi maize growers.

CONCLUSION

As per results majority of Rabi maize grower were in middle age, primary education to higher secondary education, marginal land holders, farming + animal husbandry, annual income up to 50,000 and medium mass media exposure. more than two-fifth of the tribal Rabi maize growers (42.67 per cent) were fall under medium adoption level of improved Rabi maize production technology, followed by 30.00 per cent, 26.67 per cent and 0.67 per cent. Out of seven independent variable education, extension contact and mass media exposure had positive and significant correlation with adoption level of improved Rabi maize production technology by tribal Rabi maize growers.

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