

ATTITUDE OF FARMERS TOWARDS USE OF PRIVATE BIO-FERTILIZERS

Karravula Rakesh¹ and R. M. Naik²

1 M.Sc. (Agriculture), Dept. of Extn. Edu., NMCA, NAU, Navsari-396450

2 Associate Professor, Dept. of Extn. Edu., NMCA, NAU, Navsari-396450

Email: rakesh333devan@gmail.com

ABSTRACT

Bio-fertilizers refer to substances containing live or dormant cells of microorganisms, specifically with potent strains that facilitate the absorption of nutrients by crop plants through interactions with the rhizosphere. The study was conducted in Navsari district of South Gujarat. it has 6 talukas viz., Navsari, Gandevi, Chikhli, Khergam, Vandsa and Jalalpore. All the talukas were covered under study. Bifurcated list was used to identify the respondents and a simple random sampling method was followed for selection of the respondents. 120 respondents were selected as a sample size. This study concluded that nearly half of respondents had favourable attitude towards use of private bio-fertilizers, Education, occupation, landholding, annual income, mass media exposure, extension contact, social participation, risk orientation, economic motivation, management orientation were positively and highly significantly associated at 1 per cent level of probability whereas family size, scientific orientation were positively and significantly associated at 5 per cent level of probability associated. In this study Private Bio-fertilizers refers to the bio-fertilizers manufactured by the private sector.

Keywords: bio-fertilizer, attitude, respondents, farmers

INTRODUCTION

Bio-fertilizers are low charge, renewable sources of plant nutrients which complement chemical fertilizers in natural means. The beneficial effect of legume crop in refining soil fertility was known since ancient times (Karravula et al., 2022; Vanpariya et al., 2020). The chronology of Bio-fertilizers starts with the launch of 'Nitragin' by Nobbe and Hiltner, a laboratory culture of Rhizobia in 1895, shadowed by the discovery of Azotobacter and then blue green algae (BGA) and a host of other microorganisms. Azospirillum and Vesicular Arbuscular Micorrhizae (VAM) are fairly recent innovations. In India the primary study on legume Rhizobium symbiosis was conducted by N. V. Joshi and the first commercial production started as early as 1956.

Bio-fertilizers refer to substances containing live or dormant cells of microorganisms, specifically with potent strains that facilitate the absorption of nutrients by crop plants through interactions with the rhizosphere. These microorganisms expedite various soil processes, leading to increased availability of nutrients in a form easily assimilated by plants. Bio-fertilizers contribute to soil health restoration, offering a cost-effective approach to crop yield management while also promoting environmental balance.

Bio-fertilizers became popular to counter the negative impact of indiscriminate use of chemical fertilizers.

Chemical fertilizers and pesticides have played an important role in boosting the agricultural production for past 50 years in India, since their introduction during green revolution. Their immediate action and low cost resulted in the widespread acceptance and inclusion in cultivation practices. However their long term application contributed in loss of soil fertility along with addition of salts to the soil. This led to concern for reviving the soil health and use of alternate sources of fertilizers. Thus came the concept of bio-fertilizer, which proved to be a good supplement for chemical fertilizers.

Bio-fertilizer is the need of modern agriculture since demand for safe and residue free food is increasing. In view of the shifting focus towards organic farming and reduction of chemical residues in the environment, it is necessary to promote the production of bio-fertilizers in large scale by the private sector to cater the current demand. In this study Private Bio-fertilizers refers to the bio-fertilizers manufactured by the private sector.

OBJECTIVES

- (1) To study the Attitude of respondents towards use of private bio-fertilizers
- (2) To analyze the relationship between profile of the respondents and attitude towards use of private biofertilizers

METHODOLOGY

The study was conducted in Navsari district of South Gujarat. it has 6 talukas viz., Navsari, Gandevi, Chikhli, Khergam, Vandsa and Jalalpore. All the talukas were covered under study. Bifurcated list was used to identify the respondents and a simple random sampling method was followed for selection of the respondents. Two villages from each taluka, 10 respondents were selected randomly from each village. Thus, total 120 respondents were studied and analyzed with the help of frequency, percentage, rank, mean, standard deviation and correlation coefficient.

RESULTS AND DISCUSSION

Attitude of respondents towards use of private bio-fertilizer

It is the degree of positive or negative feelings associated with respondent’s behavior towards use of private bio-fertilizers. Attitude of the cultivator is very important for the adoption of any new agricultural technology. If the cultivator has positive attitude or positive behavior about use of private bio-fertilizers they can easily adopt or use private bio-fertilizers. So here an attempt has been made to study the attitude towards use of private bio-fertilizers. The findings were presented in table 1.

Table 1: Distribution of respondents according to level of attitude towards use of private bio-fertilizers.
(n=120)

Sr. No.	Level of attitude	Respondents	
		Frequency	Percentage
1	Less favourable	36	30.00
2	Favourable	57	47.50
3	Highly favourable	27	22.50

The data of table 1 revealed that that nearly half (47.50 %) of the respondents had favourable attitude followed by 30.00 and 22.50 per cent of them had less favourable and highly favourable attitude towards use of private bio-fertilizers, respectively.

In general, majority of respondents (77.50 per cent) had favourable to less favourable attitude towards use of private bio-fertilizers. This infers that the advantages of private bio-fertilizers were not perceived in depth by the respondents therefore, the rigorous efforts are to be needed to identify the misconceptions. The finding is in line with the findings of Gawaiet al. (2013)

Relationship between profile of respondents and attitude towards use of private bio-fertilizers

The relationship between profile of the respondents and attitude towards use of private bio-fertilizers were calculated with the help of correlation co-efficient (r). The findings are presented in table 2

Table 2: Relationship between profile of respondents and attitude towards use of private bio-fertilizers

(n=120)

Sr. No.	Independent variables	Correlation coefficient (r)
X ₁	Age	0.109 NS
X ₂	Education	0.460**
X ₃	Gender	-0.134 NS
X ₄	Family type	-.0054 NS
X ₅	Family size	0.207*
X ₆	Occupation	0.403**
X ₇	Land holding	0.317**
X ₈	Farming experience	0.096 NS
X ₉	Annual income	0.316**
X ₁₀	Mass media exposure	0.350**
X ₁₁	Extension contact	0.379**
X ₁₂	Social participation	0.419**
X ₁₃	Scientific orientation	0.201*
X ₁₄	Risk orientation	0.270**
X ₁₅	Economic motivation	0.399**
X ₁₆	Management orientation	0.423**

NS non-significant * Significant at 0.05 level ** Significant at 0.01 level

The data presented in table 2 revealed that education (0.460**), occupation (0.403**), landholding (0.317**), annual income (0.316**), mass media exposure (0.350**), extension contact (0.379**), social participation (0.419**), risk orientation (0.270**), economic motivation (0.399**), management orientation (0.423**) are positively and highly significantly associated at 1 per cent level of probability whereas family size (0.207*) and scientific orientation (0.201*) were found positively and significantly associated with attitude towards use of private bio-fertilizers at 5 per cent level of probability, while age (0.109 NS), farming experience (0.096 NS), gender (-0.134 NS) and family type (-0.054 NS) had non-significant association with attitude towards use of private bio-fertilizers.

This finding is in the conformity with the finding of Girwale (2017)

CONCLUSION

It can be concluded that nearly half of respondents had favourable attitude towards use of private bio-fertilizers. Education, occupation, landholding, annual income, mass media exposure, extension contact, social participation, risk orientation, economic motivation, management orientation were positively and highly significantly associated at 1 per cent level of probability whereas family size, scientific orientation were positively and significantly associated at 5 per cent level of probability associated, while age, farming experience gender and family type were non significantly associated with attitude towards use of private bio-fertilizers.

CONFLICT OF INTEREST

All authors declare that they have no conflict of interest

REFERENCES

Gawai, M. B., Chikhale, N. J. and Deshmukh, A.N. (2013)

Adoption behaviour of contact farmers of Krishi Vigyan Kendra about bio-fertilizers. *Agriculture Update*. 8(4):551-554.

Girawale, V. B. (2017). Knowledge and Attitude of farmers towards Banana Pseudostem based 'NAUROJI Novel' Organic Liquid Fertilizer in South Gujarat. M.Sc. Thesis, Navsari Agriculture University, Navsari.

Karravula, Rakesh, Naik, R. M. and Kalasariya, Neeta (2022) Adoption level of private bio-fertilizers by farmers. *Guj. J. Ext. Edu.* 33(2):94-96.

Sabareeshwari, V. and Mary, P. C. N. (2021). Bio-fertilizers and their role in Agriculture. *Indian Farmer*. 8(1): 116-119.

Vanpariya, J. P., Jadav, N. B. and Kapuriya, T. D. (2020) Perception of farmers about Gir Sawaj brand biofertilizers and biopesticides. *Guj. J. Ext. Edu.* 31(2):127-130.

Received : September 2023 : Accepted : November 2023