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RELATIONSHIP BETWEEN PROFILE OF NAUROJI NOVEL USERS WITH THEIR EFFECTIVE USE OF NAUROJI NOVEL ORGANIC LIQUID NUTRIENTS

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ABSTRACT

Fertilizer plays a significant role in increasing crop yield and helps to ensure food security in any country. Nevertheless, the excessive use of fertilizer has led to several environmental impacts including pollution and groundwater contamination in different parts of the world. In the present scenario, most agricultural lands have been used for more than 100 or several years for agricultural purposes. Because of this continuous usage of lands and the application of chemical fertilizer, soil quality is being declined. Agricultural practices are increasingly leaning towards committing to a sustainable environment. Considering this, organic farming has become acceptable to many farmers. Many are practicing environmental-friendly practices such as using organic liquid fertilizer/nutrients instead of the synthetic alternative. Trend of organic farming is increasing day by day and it is the most urgent need to human being. Navsari Agricultural University is also working on organic farming concept and regularly updating package of practices of different crops through organic inputs. So, a study was conducted to know the relationship between profile of respondents and their effective use about nauroji novel organic liquid nutrients. The study was conducted in Navsari and Bharuch district, two talukas of each district were selected and reveal that, out of sixteen independent variables education, land holding, occupation, annual income, social participation, farming experience, economic motivation, scientific orientation, mass media exposure, innovative proneness, extension contact, motivational source and attitude towards IPM technologies were found positively and significantly associated whereas, gender and size of family had non-significant association and age had negatively non-significant association

Keywords: *relationship, effective use, nauroji novel organic liquid nutrient*

INTRODUCTION

Fertilizer plays a significant role in increasing crop yield and helps to ensure food security in any country. In the present scenario, most agricultural lands have been used for more than 100 or several years for agricultural purposes. Many argue that farmers use excessive chemical fertilizer, well above the recommended levels, as they receive the products at considerably subsidized rates. It is a fact that farmers apply chemical fertilizer without considering the proper fertilizer recommendations given by the Department of Agriculture. Simultaneously, it needs to be clarified, whether farmers are aware of the negative impacts of the excessive fertilizer application (Rohan and Vinaya 2022). Agricultural practices are increasingly leaning towards committing to a sustainable environment. In light of this, organic farming has become acceptable to many farmers. Liquid organic fertilizers/ nutrients consist of essential plant nutrients and beneficial microorganisms, which recycle organic matter. The present invention is generally related to field of organic fertilizers and methods for their production. There where most urgent need to add other nutrients in this fresh sap, so scientist of NAU have taken different treatments to add other nutrients and hormones in fresh sap. Nauroji Novel Organic Liquid Nutrient. Novel contains all the nutrients *viz.* Nitrogen, Phosphorus, Potassium, Zinc, Iron, Boron, Mn, Mg, Ca, S, Cu *etc*. Not only these, but it also contains plant growth hormones like gibbrelic acid and cytokines.

OBJECTIVES

(1) To study the profile of Nauroji Novel Organic Liquid Nutrients users of Bharuch and Navsari

(2) To measure the relationship between profile of respondents with their effective use of Nauroji Novel Organic Liquid Nutrients in fruit and vegetable crops of both the districts

METHODOLOGY

The present study was confirmed to “Ex-post Facto” research design as the independent variables were already

operated in the study area. South Gujarat region comprises of seven districts. The study was conducted in Navsari and Bharuch were selected for Nauroji Novel Organic Liquid Nutrients using farmers. The preliminary survey was done with the help of Soil and Water Management Research Unit of NAU. The criteria to select the users and non-users will be of equal land size was followed for the study. So, district was purposively selected for the study to make a comparative analysis. A purposive sampling method for selection of Nauroji Novel users was used. From Bharuch district 60 respondents were selected out of which 30 respondents Nauroji Novel non users and 30 respondents of Nauroji Novel users and Navsari district 60 respondents were selected out of which 30 respondents Nauroji Novel non users and 30 respondents of Nauroji Novel users with the total sample size of 120. In all 120 respondents was selected from two districts. Whereas, for the effective use of nauroji novel only user respondents were selected.

The independent and dependent variables were measured with the help of the scales and indices developed by the past researchers as well as structured schedules which were framed for purpose. The collected data were analyzed by using percentage, mean, standard deviation and correlation coefficient*(r)*.

RESULTS AND DISCUSSION

Profile of Nauroji novel organic liquid nutrients users and non-users

On the basis of extensive review of literature and discussions with the experts, some important personal, economic, social and psychological characters have been selected in the present study. The data of these characteristics were analyzed and presented in the table 1 with an object to draw a general picture of the respondents having knowledge of nauroji novel organic liquid nutrient users.

Table 1: Distribution of nauroji novel organic liquid nutrient users according to their personal profile (n = 120)

Personal profile of respondents	Category	Users		Non-users	
		Frequency	Per cent	Frequency	Per cent
Age	Young age (Up to 35 year)	05	08.33	19	31.67
	Middle age (36 to 60 year)	34	56.67	29	48.33
	Old age (Above 60 year)	21	35.00	12	20.00
Gender	Male	55	91.67	48	80.00
	Female	05	08.33	12	20.00
Education	No formal education (Illiterate)	04	06.67	02	03.33
	Below high school (Up to 7th std)	19	31.67	10	16.66
	Higher secondary (8th to 12th std)	29	48.33	32	53.34
	Graduate and above (College / Above college)	08	13.33	16	26.67
Size of family	Small (up to 4 members)	20	33.33	22	36.66
	Medium (5 to 7 Members)	34	56.67	31	51.67
	Large (8 or above 8 members)	06	10.00	07	11.66
Land holding	Small (group up to 2.00 acres)	12	20.00	12	20.00
	Medium (between 2.01 to 5.00 acres)	40	66.67	40	66.67
	Large (above 5 acres)	08	13.33	08	13.33
Occupation	Farming alone	32	53.33	12	33.33
	Farming + animal husbandry	21	35.00	40	48.34
	Farming + animal husbandry + Service	07	11.67	08	18.33
Annual income	Low (Up to ₹ 50,000/-)	12	20.00	21	35.00
	Medium (₹ 50,001/- to ₹ 1, 00,000/-)	28	46.67	33	55.00
	High (Above ₹ 1,00,000/-)	20	33.33	06	10.00
Social participation	No membership in any organization	09	15.00	22	36.67
	Membership in one organization	16	26.67	17	28.33
	Membership in more than one organization	28	46.67	14	23.33
	Holding position in organization	07	11.66	07	11.67
Farming experience	Lower (group up to 13 years)	15	25.00	20	33.33
	Moderate (between 14 to 24 years)	26	43.33	32	53.34
	Higher (above 24 years)	19	31.67	08	03.33

Personal profile of respondents	Category	Users		Non-users	
		Frequency	Per cent	Frequency	Per cent
Economic motivation	Lower	11	18.33	12	20.00
	Moderate	41	68.34	37	61.67
	Higher	08	13.33	11	18.33
Scientific orientation	Lower	10	16.67	14	23.33
	Moderate	41	68.33	38	63.34
	Higher	09	15.00	08	13.33
Mass media exposure	Lower	08	13.33	13	21.67
	Moderate	38	63.34	40	66.67
	Higher	11	23.33	07	11.66
Innovative proneness	Low level	08	13.34	09	15.00
	Medium level	45	75.00	38	63.34
	High level	07	11.66	13	21.66
Extension contact	Lower extension contact	06	10.00	15	25.00
	Moderate extension contact	44	73.33	36	60.00
	Higher extension contact	10	16.67	09	15.00
Motivational source	Lower	07	11.67	10	16.67
	Moderate	41	68.33	40	66.67
	Higher	12	20.00	10	16.66
Attitude towards IPM technologies	Less favourable	11	18.33	14	23.33
	Favourable	37	61.67	33	55.00
	Highly favourable	12	20.00	13	21.67

Table 1 indicates that, majority of both the categories of respondents fell under middle age group. But under old age group user respondents were higher in comparison of non-user respondents. This might be due to user respondents have maximum farming experience and the middle age farmers possess more physical vigor and can shoulder more family responsibility. Most of the respondents were male because in developing countries the role of women in the household is greatly defined by social structure and male is more dominant in agriculture related activities. Less than half (48.33 per cent) of the user respondents and (53.34 per cent) of the non-user respondents had educated up to higher secondary. This might be due to availability of the primary and secondary school at village level and colleges at taluka levels. But more numbers of non-user respondents had college and above level education in compare to user respondents. This may be due to education of these respondents was high and they prefer to work as professionals instead of farmers. While, 56.67 per cent and 51.67 per cent of user and non- user respondents were from medium size of family and nearly two-third (66.67 per cent) of the respondents of both categories have medium size of land holding with slightly more than half (53.33 per cent) had farming alone in case of user and (48.34 per cent) respondents belonged to farming + animal husbandry as their major occupation in case of non-user respondents. The (46.67 per cent) and (55.00 per cent) of the user and non-user respondents had annual income ranging from rupees 1,00,001 to 2,00,000. Less than half (46.67 per cent) user respondents had membership in more than one organization and (36.67 per cent) non user respondents were no membership in any organization.

The data presented in Table 1 revealed that less than half (43.33 per cent) and more than half (53.34 per cent) user and non-user of the respondents had moderate farming experience farming experience. More than two-third (68.34 per cent) and (61.67 per cent) of the user and non-user respondents hadmoderate level of economic motivation. The probable reason may be the prices of agricultural inputs is highly fluctuating and on the other hand other commodities leads to make farmers more cautious in decision making, reflecting its performance to invest money towards profit maximization. Majority (68.33 per cent) and (63.34 per cent) of the respondents had moderate level of scientific orientation. Data reveal that, (63.34 per cent) and (66.67 per cent) of the user and non-user respondents were frequently assessing the mass media exposure. Probable reason for this might be that large number of activities is organized by the government for increasing knowledge, skills, awareness and changing behaviour towards the farm technology.; Majority (75.00 per cent) and (63.34 per cent) of the respondents had medium level of innovative proneness. This might be due to innovators interested in taking up new practices or technology in their field so that they can improve their farm income. Majority (73.33 per cent) and (60.00 per cent) of user and non-user respondents had moderate extension contact and more than two-third (68.33 per cent) and (66.67 per cent) of the both categories had moderate motivational sources. Majority of the user respondents (61.67 per cent) and (55.00 per cent) of non-user respondents had moderate level of attitude towards IPM technologies. The possible reason might be that the IPM practices influences fruit and vegetable growers to acquire knowledge on components of IPM practices which in turn

helpful to accept the IPM practices.

The findings are similar with Kothikane (2003), Patel *et al.* (2007), Thippeswamy (2007), Sarker and Itohara (2008), Hingonekar (2011), Patel *et al.* (2011), Gardharia (2013), Rathod *et al.* (2014), Markana (2015), Girawale and Naik (2016), Lopamudra M. *et al.* (2016), Patel (2016), Patel *et al.* (2016) and Sardhara et al. (2020).

Relationship between personal profile and effective use of respondents about 'Nauroji Novel' Organic Liquid Nutrient

Relationship between the personal profile of nauroji novel organic liquid nutrients user viz.; age, gender, education, size of family, land holding, occupation, annual income, social participation, farming experience, economic motivation, scientific orientation, mass media exposure, innovative proneness, extension contact, motivational source and Attitude towards IPM technologies with their knowledge about Nauroji novel organic liquid nutrients worked out with the help of correlation coefficient (r). The data are presented in table 2.

Table 2: Relationship between personal profile and effective use of respondents about 'Nauroji Novel' Organic Liquid Nutrient (n=60)

Sr. No.	Independent variable	Correlation coefficient "*r*"
X_1	**Age**	-0.0010 ^{NS}
X_2	**Gender**	0.1105 ^{NS}
X_3	**Education**	0.2755*
X_4	**Size of family**	0.1175 ^{NS}
X_5	**Land holding**	0.2737*
X_6	**Occupation**	0.2917*
X_7	**Annual income**	0.2703*
X_8	**Social participation**	0.2817*
X_9	**Farming experience**	0.2620*
X_{10}	**Economic motivation**	0.2752*
X_{11}	**Scientific orientation**	0.2651*
X_{12}	**Mass Media exposure**	0.2929*
X_{13}	**Innovative proneness**	0.3119*
X_{14}	**Extension contact**	0.2747*
X_{15}	**Motivational source**	0.2983*
X_{16}	**Attitude towards IPM Technologies**	0.2836*

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

The data presented in table 2 revealed that in case of user respondents education (0.2755*), land holding (0.2737*), occupation(0.2917*), annual-income (0.2703*), social participation (0.2817*), farming experience (0.2620*), economic motivation (0.2752*), scientific orientation (0.2651*), mass media exposure (0.2929*), innovative proneness (0.3119*), extension contact (0.2747*), motivational source (0.2983*) and attitude towards IPM technologies (0.2836*) were found positively and significantly associated whereas, gender (0.1105^{NS}) and size of family (0.1175^{NS}) had non-significant association and age (-0.0010^{NS}) had negatively non-significant association with effective use Nauroji Novel Organic Liquid Nutrients. This finding is partially supported by Fawole and Fasina (2005) and Patel (2006).

CONCLUSION

From the above results it can be conclude that, education, land holding, occupation, annual income, social participation, farming experience, economic motivation, scientific orientation, mass media exposure, innovative proneness, extension contact, motivational source and attitude towards IPM technologies were found positively and significantly associated with effective use of Nauroji Novel Organic Liquid Nutrients user. The respondents with medium and large land holding will have more opportunities and potentiality to try new effective way of using Nauroji Novel Organic Liquid Nutrient. As a result, the income derived from land could be used for undertaking new way of effective use of Nauroji Novel Organic Liquid Nutrient for the betterment of the life. The user respondents get latest information about Nauroji Novel Organic Liquid Nutrient and have good extension contact with agriculture related officers. Thus, the respondents are motivated to seek more information about the efficiency and beinvolment of respondents in co-operatives and SHG help them to accessible information and promotion of Nauroji Novel Organic Liquid.

CONFLICT OF INTEREST

No conflict of interest

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