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Relationship between selected characteristics of mango growers and their adoption of recommended dose of fertilizers

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Abstract
The present study was conducted in the south Konkan region of Maharashtra state using ex-post facto research design (Kerlinger 1969). Four talukas were selected on the basis of maximum area under mango cultivation and from each selected taluka, 5 villages were selected on the basis of maximum area under mango cultivation. Thus, 20 villages were selected. Total 120 respondents, respondents selected on the basis of proportionate sampling. The respondents were interviewed with the help of specially designed schedule. Collected data was classified, tabulated and analysed by using various statistical methods. There was a positive and significant relationship between distance of source of input dealers from mango growers (0.22503*) and knowledge of mango growers about recommended dose of fertilizers (0.76064**), whereas age (0.10504^{NS}), education (-0.00390^{NS}), experience in mango cultivation (0.04868 NS), area under mango cultivation (-0.00952 NS), production from mango (0.07835 NS), income from mango (-0.02563 NS), age of orchard (0.04675 NS), accessibility of the information received from mass media (0.00518 NS) and awareness about soil health card information (0.04960 NS).

Keywords: Adoption level, characteristics of mango growers, fertilizers

Introduction
Agriculture is an important occupation of rural people and it is the backbone of economy of many countries. Naturally, the practices and procedures of cultivating different crops have been changing from time to time. India is an agricultural country with about 60.43 percent of its area under agricultural cultivation (World Bank, 2018) [18]. Over 70 percent of country's population lives in rural areas, where majority of the people belongs to farming communities (GOI, 2011) [17]. Even though the soil, climate and topography vary from region to region and within a region, all types of crops can be grown successfully in the country. Intensive and multiple cropping systems are practiced where irrigation facilities are provided.

Mango (*Mangifera indica* L.) belonging to family Anacardiaceae is the most important commercially grown fruit crop in India. It is being consumed in each part of the world due to its good medicinal and nutritional values. Alphonso variety is honoured as the king of all varieties of mangoes. Alphonso mango has geographical indications (GI) in Ratnagiri and Sindhudurg which enables it to claim exclusive rights to the product.

Mango has been considered as one of the most important horticultural crops of Konkan region. The mango growers can increase their production of mango through the adoption of new varieties with improved practices and regular use of fertilizers. A first-hand knowledge regarding existing status of adoption of recommended dose of fertilizers helpful to extension workers for concentrating their efforts to create favourable conditions for better adoption of the innovations related to fertilizer use in mango cultivation. It is expected that the findings of this study may prove beneficial to know the personal, social, economic and psychological characteristic of the mango growers as well as their adoption towards the use of fertilizer recommendations. Furthermore, it may reveal the crucial factors responsible for gap in adoption. These findings may help researchers and extension workers to plan better communication strategies to bridge gap in the adoption of recommended dose of fertilizers by the growers.

This study was carried out with the objective to know the selected characteristics of mango growers which were correlated with adoption of recommended dose of fertilizers.

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Methodology
This study was carried out in Ratnagiri and Sindhudurg districts. Ratnagiri and Rajapur tehsils selected from Ratnagiri district and Devgad and Malwan tehsils selected from Sindhudurg district. The 120 mango growers were from selected villages. The data were collected by conducting personal interview through pre- Structured Interview Schedule. The relationship between attributes and adoption level was tested with the help of correlation coefficient.

Result and Discussion
Table 1 revealed that there was a positive and significant relationship between distance of source of input dealers from mango growers (0.22503*) and knowledge of mango growers about recommended dose of fertilizers (0.76064 **), whereas age (0.10504^{NS}), education (-0.00390^{NS}), experience in mango cultivation (0.04868 NS), area under mango cultivation (-0.00952 NS), production from mango (0.07835 NS), income from mango (-0.02563 NS), age of orchard (0.04675 NS), accessibility of the information received from mass media (0.00518 NS) and awareness about soil health card information (0.04960 NS).
Gopiram (2005) [5], Patel (2005) [12], Naik *et al*. (2010) [10], Nichal (2010) [11], Kawale (2011) [7], Poonam and Sarkar (2015) [14], Damor *et al*. (2017) [7], Tomar (2019) [16], and Jadhav *et al*. (2021) [6], were also reported the similar factors which effect the adoption level of mango gorwers.

Table 1: Pearson's correlation co-efficient of independent variables with adoption of recommended dose of fertilizers by the mango growers

(N= 120)

Sl. No.	Independent variables	Variable code	'r' value
1	Age	X_1	0.10504 NS
2	Education	X_2	-0.00390 NS
3	Experience in mango cultivation	X_3	0.04868 NS
4	Area under mango cultivation	X_4	-0.00952 NS
5	Production from mango	X_5	0.07835 NS
6	Income from mango	X_6	-0.02563 NS
7	Age of orchard	X_7	0.04675 NS
8	Distance of source of input dealers from mango growers	X_8	0.22503*
9	Accessibility of the information received from mass media	X_9	0.00518 NS
10	Awareness about soil health card information	X_{10}	0.04960 NS
11	Knowledge about recommended dose of fertilizers	X_{11}	0.76064 **

*= Significance at 0.05 level (0.174)
**= Significance at 0.01 level (0.228)
NS = Non Significance

Conclusion
The study revealed that age, education, experience in mango cultivation, area under mango cultivation, production from mango, income from mango, age of orchard, accessibility of the information received from mass media and awareness about soil health card information were non-significantly related with adoption of recommended dose of fertilizers. The extension agencies in selecting their target group should give priority to those mango growers possessing high qualities in above attributes. Such farmers can help the extension agencies in convincing the other farmers to know and adopt recommended dose of fertilizer technology at a faster rate.

The independent variables, distance of source of input dealers from mango growers and knowledge had significant influence on adoption of recommended dose of fertilizers. Hence, these characteristics should be taken into consideration to improve the adoption of mango growers.

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