



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; 11(12): 5985-5987
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www.thepharmajournal.com
Received: 01-09-2022
Accepted: 05-10-2022

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Constraints faced by the mango growers as well as to seek the suggestions to overcome the constraints faced by the mango growers in adoption of recommended dose of fertilizers

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Abstract

The study was conducted in Ratnagiri and Rajapur tehsils of Ratnagiri district and Devgad and Malwan tehsils of Sindhudurg district of Konkan region. The sample constituted 120 mango growers from 20 villages. The respondents were interviewed with the help of specially designed schedule. Ex-post facto research design (Kerlinger 1969) was used for the present study. The data was collected by personal interview. The analysis of data revealed that majority of the mango growers had constraints about inaccessibility to soil testing laboratories followed by lack of training for manure and fertilizer application, less detail knowledge about doses of FYM and chemical fertilizers, non-availability chemical fertilizers in time and adequate quantity followed by high cost of fertilizers and due to uneven and sloppy land, difficult to apply the fertilizers and management of orchards.

The analysis of data also revealed that major suggestions were to get available all type of fertilizers at cheaper rate, followed by to get available the fertilizers in time and adequate quantity and to get available an adequate and proper recommended doses of fertilizers chart.

Other suggestions that obtained were the government schemes/subsidy is expected on various recommended fertilizers followed by season based training on recommended dose of fertilizers and their applications from university and to get available easy access soil testing laboratory.

Keywords: Adoption, constraints in adoption of recommended dose of fertilizers, suggestions

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) [7]. Over 70 percent of country's population lives in rural areas, where majority of the people belongs to farming communities (GOI, 2011) [6]. 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.

The research was identified the constraints experienced and solutions given by the mango growers in adoption of recommended dose of fertilizers. Such type of results will definitely serve as a guideline or arrow to the scientists those are involved in nutrition management planning in mango crop in refinement or modify their future plan of research in mango crop related to nutrient management and also to input dealers to enhance their capacity in supply and services. In short, as an importance, the findings of the study will help to the planners, administrators, scientists, extension functionaries and input dealers to assist the mango growers while obtaining assured higher yield from per unit area along with quality produce.

Methodology

The research work was conducted in Ratnagiri and Sindhudurg district of south Konkan region of Maharashtra state. From each selected district, two tehsils having maximum area under

mango cultivation were selected for the present study. Thus, Ratnagiri and Rajapur tehsils from Ratnagiri district and Devgad and Malvan tehsils from Sindhudurg district were selected for the study. Five villages from each tehsil were selected on the basis of maximum area under mango cultivation. A total 120 mango growers were selected for the present study. The data regarding adoption of recommended dose of fertilizers was collected with the help of a specially designed interview schedule by keeping in view the objectives of the study. Collected data was classified, tabulated and analyzed by using various statistical methods. 'Ex-post facto' research design was used to conduct the present study.

Result and Discussion

Constraints faced by mango growers in adoption of recommended dose of fertilizers

It was operationally refers to items of difficulties faced by

mango growers in the adoption of recommended dose of fertilizers. The frequency and percentage of each constraints were worked out to identify the major constraints encountered by the mango growers. The constraints reported by the mango growers are presented in Table 1.

The analysis of findings regarding constraints perceived by the mango growers were arrange in descending order of rank were 'Inaccessibility to soil testing laboratories', (81.67 percent) ranked first, followed by 'lack of training for manure and fertilizer application', (58.33 percent) on rank second, 'less detail knowledge about doses of FYM and chemical fertilizers' (55.00 percent) rank third. 'Non-availability chemical fertilizers in time and adequate quantity', (50.00 percent) rank fourth followed by 'high cost of fertilizers' (25.83 percent) rank fifth and 'due to uneven and sloppy land, 'difficult to apply the fertilizers and management of orchards' (22.50 percent) ranked seventh.

Table 1: Distribution of mango growers according to constraints perceived by them in adoption of recommended dose of fertilizers

Sl. No.	Constraints	Respondents (n=120)		
		Frequency	Percent	Rank
1	Less detail knowledge about doses of F.Y.M. and chemical fertilizers	66	55.00	III
2	High fluctuation in market prices of various fertilizers	27	22.50	VII
3	Due to uneven and sloppy land, difficult to apply the fertilizers and management of orchards	29	24.17	VI
4	Inaccessibility to soil testing laboratories	98	81.67	I
5	Lack of training for manure and fertilizer application	70	58.33	II
6	High cost of fertilizers	31	25.83	V
7	Non-availability chemical fertilizers in time and adequate quantity	60	50.00	IV

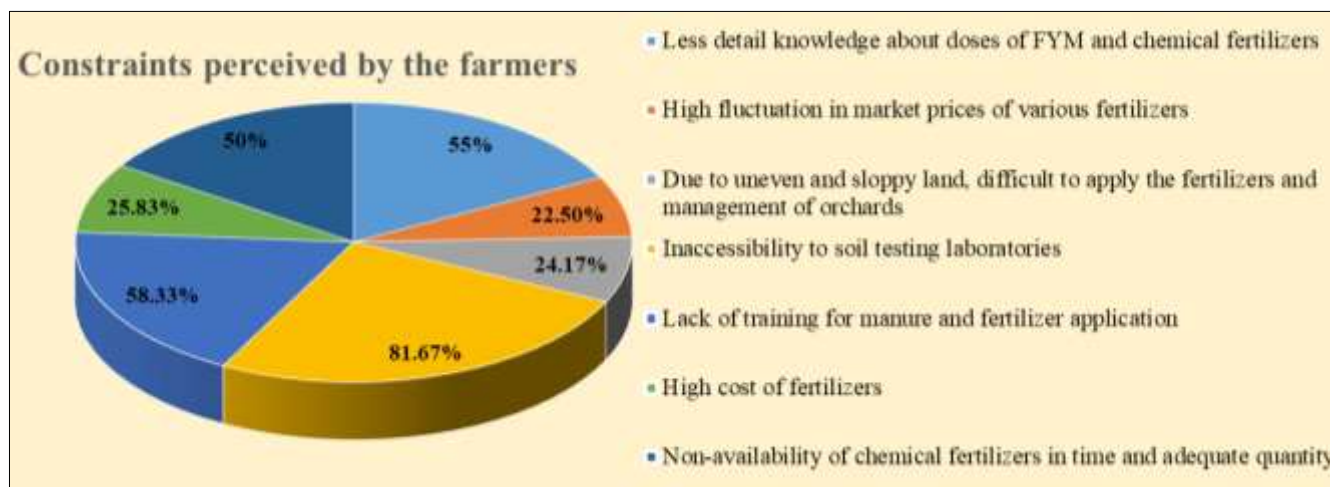


Fig 1: Distribution of the mango growers according to constraints perceived by them in adoption of recommended dose of fertilizers

Suggestions of the mango growers to overcome the constraints in adoption of recommended dose of fertilizers

The mango growers were asked to suggest the possible

solutions to overcome the constraints associated with their adoption of recommended dose of fertilizers. Suggestions offered by the farmers shows in Table 2.

Table 2: Distribution of the mango growers according to their suggestions to overcome the constraints in adoption of recommended dose of fertilizers

Sl. No.	Suggestions	Respondents (n =120)		
		Frequency	Percent	Rank
1	To get available an adequate and proper recommended doses of fertilizers chart	72	60.00	III
2	To get available easy access to soil testing laboratory	42	35.00	VI
3	Season based training on recommended dose of fertilizers and their applications from university	57	47.50	V
4	To get available all the type of fertilizers at cheaper rate	88	73.33	I
5	To get available the fertilizers in time and adequate quantity	76	63.33	II
6	The government schemes / subsidy is expected on various recommended fertilizers	68	56.67	IV

The result presented in table 2 indicated that according to responses given by the farmers for the major listed suggestions were arranged in descending order of ranks were; 'to get available all type of fertilizers at cheaper rate' (73.33 percent), followed by 'to get available the fertilizers in time and adequate quantity' (63.33 percent) and 'to get available an adequate and proper recommended doses of fertilizers chart' (60.00 percent).

Other suggestions that obtained were, 'the government schemes / subsidy is expected on various recommended fertilizers' (56.67 percent) followed by 'season based training on recommended dose of fertilizers and their applications from university' (47.50 percent) and 'to get available easy access soil testing laboratory' (35.00 percent).

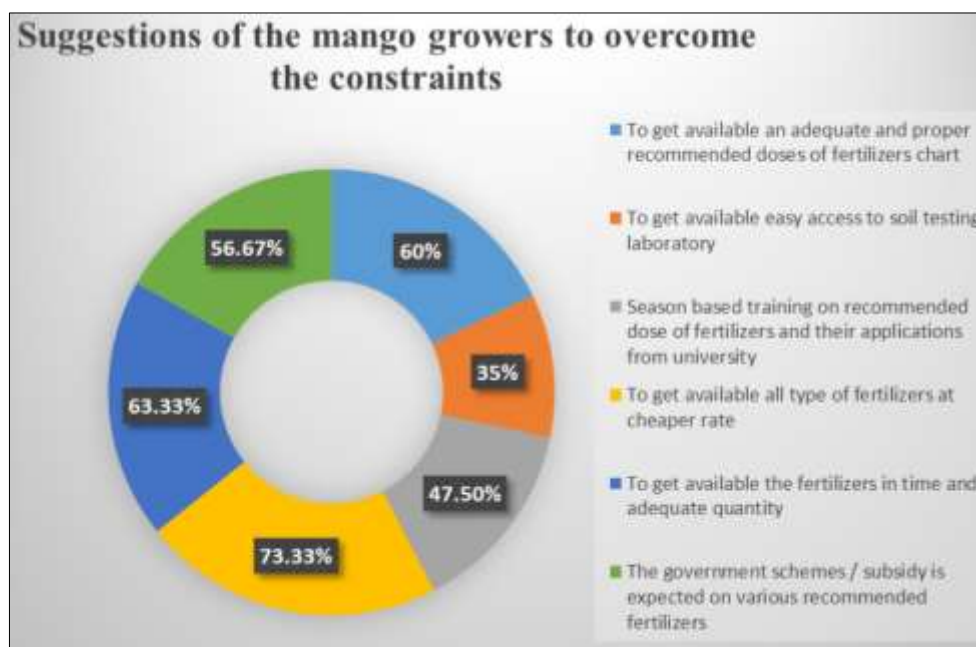


Fig 2: Distribution of the mango growers according to their suggestions to overcome the constraints in adoption of recommended dose of fertilizers

Conclusion

The valuable constraints made by the mango growers for adoption of recommended dose of fertilizers were the respondents felt that due to uneven and sloppy land, difficult to apply the fertilizers and management of orchards. Lack of training for manure and fertilizer application and inaccessibility to soil testing laboratories.

Farmers expressed some constraints which hinder the speedy and full adoption of recommended dose of fertilizers. The essential inputs required for mango cultivation such as recommended manures and fertilizers should be made available at subsidized rates through government agencies. At a same time other constraints like in efficient adoption of recommended dose of fertilizers, Inaccessibility to soil testing laboratories and lack of training for manure and fertilizer application were also recorded. In these case, concerned agencies should think of the strategy in the light of these constraints for efficient management of mango orchard by the growers.

The finding in respects to suggestions offered by mango growers in efficient adoption of recommended dose of fertilizers revealed that to get available all type of fertilizers at cheaper rate, to get available the fertilizers in time and adequate quantity and to get available an adequate and proper recommended doses of fertilizers chart. These suggestions are applicable to all the systems, namely, research and extension wing of university, state agriculture department, Z. P. and P. S. agricultural division, fertilizer companies and input dealers. Suitable action on these suggestions need to be initiated by above functionaries

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