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Constraints faced by mango growers and nursery man regarding mango malformation in Navsari district

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Abstract

This study was conducted in Navsari district of Gujarat State selected purposively. A total number of 150 mango growers and nursery man were selected through random sampling from twenty five villages. The structured schedule was developed keeping in view the objectives and variable to be studied. The respondents were contacted personally for data collection. The result revealed that major constraints face on mango grower & nursery man were majority of responded believed that mango malformation is an unsolved mystery and second constraint was lack of knowledge about mango malformation and very difficult to identified malformed root stock in initial stage. As a result to overcome constraints some suggestions as action plan in relation to awareness farmers about effective control measure for malformation & provision of planting material free from mango malformation.

Keywords: nursery man, mango malformation, planting material

1. Introduction

Mango (*Mangifera indica* L.) is one of the most important fruit crop of India and it belonging to family *Anacardiaceae*. India still dominates the world mango production and rank first with a total production of 18431 thousand Million tons from an area of 2516 thousand ha.

Irrespective to the reality that India is having a comparative advantage over other mango production countries in term of total production still the productivity (7.3 tonnes/ha) continues to below (Anonymous 2015) [1]. During last few decades farmers' particularly in Gujarat facing huge problem due pest & diseases infestation and physiological disorder. A mango is susceptible to incidence of different pest and disease, their occurrence is the important factor influencing its production and productivity. The loss of yield in mango is due to inferior quality of planting material, occurrence of different pest & diseases, climate change and inability to control the same by the growers due to lack of knowledge. (Sayali Thakur and Shrike, 2013) [7]. Mango malformation problem needs to be carefully tackled for long run solution of under developed mango growers because this melody is direct effect on yield of mango for long run. Hence this study aim to understanding constraints faced by mango growers and nursery man about mango malformation and suggestion made by them to overcome these constraints.

Material and Methods

The study was conducted in mango growers Navsari district of South Gujarat. A total number of 150 farmers from 25 villages from five taluka of Navsari district were selected purposively and from each village six respondent was selected randomly making the total of 150. The data were collected through personnel interview. The dependent and independent variables were measured by utilizing suitable scales and procedure adopted by other research workers. The interview schedule was prepared by keeping the objectives of the study in mind. The interview schedule was developed through discussion with expert, scientist and extension officers working in the Navsari Agricultural University, Navsari. The necessary care was taken to collect the un-biased and correct data. The data were collected, tabulated and analyzed to find out the findings and draw conclusion. The statistical tool like percentage was employed to analyze the data. Design of research study Ex – Post facto was used. The constraints as perceived by respondents were scored on the basis of magnitude of the problem as per Meena and Sisodiya (2004). The respondents were recorded and converted into mean per cent score and constraints were ranked accordingly as per Warde *et al.* (1991).

Results

Constraints

Constraints encountered in mango growers and nursery man regarding mango malformation were studied and are presented in table 1. The major constraints experienced in mango growers and nursery man regarding mango malformation in the study area as follows. All the respondents (99.33 %) expressed the major constraints was mango malformation an unsolved mystery. Majority of respondents that is 97.33 per cent expressed lack of knowledge about mango malformation and identified malformed rootstock in

initial stage. No any research recommendation to control of malformation was important constraint expressed by 96.67 percent of mango growers and nursery man. The other constraints in mango growers and nursery man expressed by the respondents was lack of technical guidance (94.67 %). For stone treatment, shorting of peel and stone very difficult when mango stone purchase from processing industries (86.0 %) and non-availability of malformation free planting material (81.33 %). Similar results were finding by Sayali Thakur and Shirke (2013) [7], Jawale and Ghulgule (2015) [4] and Gardi *et al.* (2016) [3].

Table 1: Constraint face by mango growers and nursery man regarding mango malformation in Navsari district. (n =150)

| Sr. N. | Constraints | Frequency | Percentage |
|--------|--|-----------|------------|
| 1 | Very difficult to identified malformed rootstock in initial stage. | 146 | 97.33 |
| 2 | For stone treatment, shorting of peel and stone very difficult when mango stone purchase from processing industries. | 129 | 86.00 |
| 3 | Lack of technical guidance. | 142 | 94.67 |
| 4 | Lack of knowledge about mango malformation. | 146 | 97.33 |
| 5 | No any research recommendation to control malformation in nursery stage. | 145 | 96.67 |
| 6 | Mango malformation an unsolved mystery. | 149 | 99.33 |
| 7 | Non availability of malformation free planting material. | 122 | 81.33 |

Suggestions by mango growers and nursery man regarding mango malformation

Suggestions of mango growers and nursery man regarding mango malformation were calculated in the form of frequency and percentage in table-2. It was observed, about 94.67 per cent of mango growers and nursery man suggested the find out effective control measure for mango malformation. Majority of respondents suggested provision of planting material free from mango malformation (89.33 %) followed

by research on actual cause of mango malformation (82.00 %). Government nursery and private nursery man more focus to provide mango graft free from malformation (80.67 %), effective adoption of university recommended technology for control of malformation, extension system on field level (72.67 %). Whenever research on organically control measure for mango malformation were suggested by 17.33 percent respondents. This results were confirmed by Dhakne *et al.* (2009) [2], More *et al.* (2015) [6] and Kumar *et al.* (2017) [5].

Table 2: Suggestion given by mango growers and nursery man regarding mango malformation n =150

| Sr. N. | Suggestions | Frequency | Percentage |
|--------|--|-----------|------------|
| 1 | Provision of planting material free from mango malformation | 134 | 89.33 |
| 2 | Research on actual cause of mango malformation | 123 | 82.00 |
| 3 | Research on organically control measure for mango malformation | 26 | 17.33 |
| 4 | Government nursery and private nursery man more focus to provide mango graft free from malformation | 121 | 80.67 |
| 5 | Effective adoption of university recommended technology for control of malformation, extension system on field level | 109 | 72.67 |
| 6 | Find out effective control measure for mango malformation | 142 | 94.67 |

Conclusion

Results show that the important constraints face by mango growers and nursery man regarding mango malformation were, mango malformation an unsolved mystery, lack of knowledge about mango malformation and identified malformed rootstock in initial stage and no any research recommendation to control of malformation. As concerned with important suggestions of mango growers and nursery man regarding mango malformation were effective control measure for mango malformation, provision of plant material free from mango malformation and research on actual cause of mango malformation.

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