

Original Research Article

Pre and post training assessment of mango growers regarding mango production in Sindhudurg district of Maharashtra

ABSTRACT

The investigation was undertaken to study the assesspre and post training assessment of mango growers regarding mango production in Sindhudurg district of Maharashtra. The training were organized in three tahsils during the December, 2019 on different management aspects in mango production. The overall average of knowledge level indicate that 49.44 per cent growers had medium knowledge and 32.22 per cent mango growers had high knowledge level. However, low knowledge level was seen in 18.33 per cent growers. Among different phases and management practices, 67.78 per cent growers were well acquainted with harvesting technique. Before training, the lowest score (25.56) was in knowledge about induction of flowering as the flowering in mango is complex phenomena and associated with several factors which may need to explain deeply. The maximum score (82.22) was recorded in harvesting technique. The mean knowledge score on Pest and diseases in mango blossom phase and their management after imparting training was maximum (95.56) compared to the mean knowledge score 48.89 before training. The highest per cent change in knowledge (112.12 per cent) was observed in the causes of fruit drop and remedy for control.

(Keywords : Mango growers, training, knowledge, Alphonso)

INTRODUCTION

The mango (*Mangifera indica* L.) is the leading, most renowned tropical fruit and known as 'King of the fruits' due to its delicious taste, admirable flavour, appealing aroma and attractive colour and other several desirable characters. It is the most popular tropical fruit from Anacardiaceae family originated from South East Asia, the Indo-Burma region. It is the oldest fruit cultivated in world for over 4000 years. Mango has intimate association with religious, cultural, aesthetic and economical values since from long time and therefore it the national fruit of India.

Comment [u1]: Check this statement please

Mango is commercially grown in most of the states of India. However, the mango grown in the Konkan region of Maharashtra is famous due to certain attributes associated with the region. The most important attribute is the 'Alphonso' cultivar which is dominant in the region. India has the richest wealth of mango germplasm consisting of more than thousands of varieties growing all over the country. Among the popular cultivars, 'Alphonso' ranks top and acclaimed as the best Indian mango variety. This cultivar is commercially grown in west coast of India comprising Maharashtra, Goa, Karnataka and Gujarat states.

Comment [u2]: In which region?

Comment [u3]: Check please

In the recent years, the production of mango is crucial due to climatic aberrations and certain socio-economical problems. The technologies are being developed which are being certainly helping in improvement of productivity of mango. However, crop management during the flowering to harvest is imperative which eventually persuade the yield and economic returns. It is obvious that farmers are trying their best for increasing production levels by using the traditional methods and their experiences. But the lack of scientific knowledge and favourable environment towards the recommended practices, they cannot use available resources in proper scientific manner (Harikrishna, *et al.*, 2012).

Comment [u4]: Link this sentence properly

The training to farmers during the specific phase of crop production may lead to educate them about the practices and assessment of their knowledge about the technology is also important to know the extent and accordingly to plan the extension activities. It help to increase the knowledge and awareness about the technologies among the farmers, and ultimately adoption, because knowledge is a pre-requisite to adoption (Mahadiket *et al.*, 2007). With this view, the pre and post training evaluation of the growers was done in Sindhudurg district of Maharashtra.

Comment [u5]: Check this sentence and reconstruct

METHODOLOGY

The farmers training programme were arranged in three tahsils of Sindhudurg district viz; Deogad, Malvan and Kankawali. Total three training programmes were conducted during the month of December, 2019 to impart knowledge on different phases and management practices of Alphonso mango production. For each training, 30 farmers were randomly selected for pre and post training evaluation. The knowledge was assessed on low, medium and high level categories. The questions on each events were asked and pre and post training assessment was done. The collected data were tabulated and analyzed.

Comment [u6]: Avoid the use of 'and' as much as possible

RESULTS AND DISCUSSION

The knowledge level of the mango growers (trainees) about different phases and management practices of Alphonso mango production is presented in Table 1. It is observed that the overall average of knowledge level indicate that 49.44 per cent growers had medium knowledge and 32.22 per cent mango growers had high knowledge level. However, low knowledge level was seen in 18.33 per cent growers. Among different phases and management practices, 67.78 per cent growers were well acquainted with harvesting technique. The knowledge about pest and diseases in mango blossom phase and their management was

Comment [u7]: Did you administer questionnaire, did you qualitative analysis techniques. How did you come by your data

comparatively low to 24.44 per cent growers. In case of causes of fruit drop and remedy for control, 71.11 per cent growers were reported under medium knowledge level.

Comment [u8]: What was the means data collection during training? You assume we know. Explain please. How did you come by the statistics data information

All the phenophases from the mango flowering induction to harvesting are very important and the growers should be well aware about timely management practices. The present findings indicates that there is scope to improve the knowledge levels in this specific phase. The results were in agreement with the findings of Kumar *et al.* (2022).

The knowledge level of mango growers about different phases and management practices of Alphonso mango production is presented in Table 2. The analysis on extent of change in knowledge presented in Table 2 revealed that before training, the lowest score (25.56) was in knowledge about induction of flowering as the flowering in mango is complex phenomena and associated with several factors which may need to explain deeply. The maximum score (82.22) was recorded in harvesting technique aspect as maturity signs and harvesting technique is widely known to mango growers. The mean knowledge score on Pest and diseases in mango blossom phase and their management after imparting training was maximum (95.56) compared to the mean knowledge score 48.89 before training. The results revealed improvement in knowledge about plant protection which indicated 95.46 per cent after the imparting the training.

The highest per cent change in knowledge (112.12 per cent) was observed in the causes of fruit drop and remedy for control as fruit drop is a key issue in mango production in recent years due to changing climate and the participants acquired knowledge regarding causes of fruit drop, remedies for control such as use of growth regulators, irrigation, nutrition, etc. The overall improvement in the knowledge level was 74.77 per cent. The similar findings were also reported by Kumar *et al.* (2008) and Malsheet *et al.* (2016).

Comment [u9]: How did you acquire the data? methodology

CONCLUSIONS

The present findings revealed that the training conducted on various management practices of Alphonso mango production especially during the phase of flowering to harvesting were advantageous in changing the knowledge of the respondent mango growers in an encouraging direction.

Comment [u10]: How did you evaluate your training?

REFERENCES

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Comment [u11]: Reference too few.

UNDER PEER REVIEW

Table 1. Knowledge level of the mango growers (trainees) about different phases and management practices of Alphonso mango production

| Sr. No. | Particulars | Frequency (N = 90) | | |
|---------|---|--------------------|-----------------|-----------------|
| | | Low | Medium | High |
| 1. | Induction of flowering | 14 (15.56)* | 55 (61.11) | 21 (23.33) |
| 2 | Pest and diseases in mango blossom phase and their management | 22 (24.44) | 52 (57.78) | 16 (17.78) |
| 3 | Fruit set and fruit development | 20 (22.22) | 41 (45.56) | 29 (32.22) |
| 4 | Causes of fruit drop and remedy for control | 16 (11.11) | 64 (71.11) | 10 (17.78) |
| 5 | Harvesting technique | 8 (8.89) | 21 (23.33) | 61 (67.78) |
| 6 | Post harvest handling | 12 (13.33) | 34 (37.78) | 44 (48.89) |
| | Overall average | 16.5 (18.33) | 44.5 (49.44) | 29.0 (32.22) |

(* indicates percentage of respective frequencies)

Table 2. Pre and post training knowledge level of the mango growers (trainees) about different phases and management practices of Alphonso mango production

| Sr. No. | Technology | Knowledge (Score) | | | Percent change | Rank |
|---------|---|-------------------|-------|-----------------|----------------|------------|
| | | Before | After | Mean difference | | |
| 1 | Induction of flowering | 25.56 | 47.78 | 22.22 | 86.96 | III |
| 2 | Pest and diseases in mango blossom phase and their management | 48.89 | 95.56 | 46.67 | 95.46 | II |
| 3 | Fruit set and fruit development | 47.78 | 86.67 | 38.89 | 81.40 | IV |
| 4 | Causes of fruit drop and remedy for control | 36.67 | 77.78 | 41.11 | 112.12 | I |
| 5 | Harvesting technique | 82.22 | 88.89 | 6.67 | 8.11 | VI |
| 6 | Post harvest handling | 53.33 | 87.78 | 34.44 | 64.58 | V |
| | Overall average score | 49.07 | 80.74 | 31.67 | 74.77 | |