



STUDIES ON KNOWLEDGE LEVEL, ADOPTION OF POST HARVEST HANDLING IN MANGO

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Received: 21/02/2019

Edited: 27/02/2019

Accepted: 08/03/2019

Abstract: *The study was conducted to assess the level of knowledge and extent of adoption of recommended post harvest handling practices in mango in Deogad tahsil of Sindhudurg district of Maharashtra. The high level of knowledge was noticed with 93.75 per cent of respondents in judging the maturity signs of fruits for harvesting, while 86.25 per cent had low knowledge level about post harvest handling practices. The medium level of adoption was observed in 72.50 per cent farmers (mango growers) and 12.50 per cent farmers growers) had high levels of adoption. the characteristics viz; education, experience possessed significant positive correlation with adoption of recommended practices of post harvest handling of mango fruits whereas age and land holding showed significantly negative relationship with the adoption.*

Key words: *Mango, Post harvest handling, Knowledge, Adoption.*

Introduction

Mango is an evergreen perennial fruit tree that is propagated vegetative under active cultivation. Among the major fruits of India, mango (*Mangifera indica* L.) is known as the king of fruits as mango fruits are greatly relished for their succulence, pleasant flavour and delicious taste. It thrives well on wide variety of soils which provides an opportunity for large scale commercial planting of mango. Among the commercial varieties of mango, Alphonso variety which is prominently growth in south Konkan coastal zone of Maharashtra is worldwide popular. The Alphonso mango fruits from Deogad tahsil and other parts of this region near to sea which are grown in hard lateritic rock conditions have early crop and excellent qualities which eventually fetch high value in the market.

The unscientific post-harvest handling results in increased post-harvest loss rate. Therefore, loss rate has to be gradually brought down in order to achieve the target of surplus produce for industry and export after meeting the nutritional requirement of the country. The importance of post harvest handling in mango from field to stake holder lies in the fact that it has the capability to meet requirement of growing population by elimination losses, making

more nutritive items from its pulp by proper processing and fortification. Eventhough, the post harvest handling practices has been standardized and recommended to reduce post harvest losses and to earn high economic returns, the mango growers are not adopting such recommended practices. The practices are varying from grower to grower according to their personal and socio-economic characteristics. It was reported that, the post harvest loss of about 17.1 to 36.7 per cent has resulted in net availability of about 8826 tonnes of mango (NHB, 2007-08). Therefore the study was conducted to assess the level of knowledge and extent of adoption of recommended post harvest handling practices in mango in Deogad tahsil of Sindhudurg district of Maharashtra.

Methodology

The study was undertaken by Regional Fruit Research Station, Vengurle, Dist. Sindhudurg, Maharashtra state in Deogad tahsil during the year 2015-16 as there is comparatively large area under mango cultivation with high economic worth. From selected tahsil, eight villages were selected by random sampling method and from each village 10 farmers were selected randomly. In all, 80 respondents constituted the sample for study. The knowledge

level and adoption was judge by collecting the data in with the help of personally interviewing the farmers. The knowledge about fruit maturity signs, harvesting method, time and post harvest handling was assessed. The frequency, percentage were estimated and correlation were worked out for interpretation of data.

Results and Discussion

A perusal of data in Table 1 indicates the overall knowledge level of respondents about post harvest handling practices in Alphonso mango. It was observed that high level of knowledge was noticed with 93.75 per cent of respondents in judging the maturity signs of fruits for harvesting, while 86.25 per cent had low knowledge level about post harvest handling practices like removal of field heat, handling in pack house, grading, etc. The overall knowledge level of respondents was more than 85 per cent indicating that mango growers are habituated with these practices. The possible reasons in gap of knowledge level could be lack of knowledge and technical guidance about these practices. Similar findings were also reported by Sunil Kumar (2004) and Modi (2010).

The data presented in Table 2 indicates that the majority of the farmers (72.50 per cent) were

having medium level of adoption, whereas only 12.50 per cent farmers (Mango growers) had high levels of adoption and low adoption was noticed in 15.00 per cent farmers. It is noticeably inferred that the knowledge level of the mango growers are quite higher however the adoption of the known practices was relatively low to medium. This might be due to certain constraints (Socioeconomically, location specific) which were faced by the farmers. The similar trend of adoption was noticed by Narkar *et al*, (2004) in kagznilime and Modi (2010) in mango.

It could be observed from Table 3 that the characteristics viz; education, experience possessed significant positive correlation with adoption of recommended practices of post harvest handling of mango fruits whereas age and land holding showed significantly negative relationship with the adoption. The personal factors age, education, land holding influenced the adoption of technology. These findings are in conformity with the findings of Narkar *et al*, (2004) and Malshe and Mahadik (2016).

For increase in the adoption level, there is a need of motivate the mango growers and to upgrade the skills by organizing training programme, method and result demonstrations, group discussions, field visits.

Table 1: Knowledge level of mango growers about post harvest handling of mango fruits (n=80)

Sr. No.	Practice	No. of respondent	Percentage
1.	Maturity signs for harvesting	75	93.75
2.	Harvesting time and method	73	91.25
3.	Post harvest handling	69	86.25
4.	Packing and transportation	71	88.75

Table 2: Distribution of the respondents according to the level of overall adoption of recommended package of post harvest handling in mango (n=80)

Sr. No.	Category	Frequency	Percentage
1.	Low adoption	12	15.00
2.	Medium adoption	58	72.50
3.	High adoption	10	12.50

Table 3: Relationship of some personal characteristics of farmers with adoption (n=80)

Sr. No.	Category	Coefficient of correlation (r value)
1.	Age	-0.415**
2.	Education	0.613**
3.	Land holding	-0.186*
4.	Experience	0.302*

(* Significant at 0.05% level of probability)

(* Significant at 0.01% level of probability)

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