



CRITICAL ANALYSIS OF ADOPTION PATTERN OF POMEGRANATE GROWERS IN KOPPAL DISTRICT

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ABSTRACT

The study was conducted in Koppal district of Karnataka covering two taluks namely Kusthagi and Yelburga during 2013-14 to analyze the Adoption pattern of Pomegranate growers. Research design used for the study was ex-post-facto technique. A total number of 120 Pomegranate growers were interviewed for the purpose. The results revealed that about 38.33 % of the farmers belonged to high overall adoption category, while 31.67 % of the respondents belong to low and 30.00 % of respondents belong to medium overall adoption category respectively. With respect to adoption of Pre-planting practices of Pomegranate cultivation, it was found that 100 % of the farmers have fully adopted the practices like Variety, spacing, Pit size and planting material. About 75.83 % of growers have fully adopted the recommended practice of Age of seedling while planting and 60.00% of growers have fully adopted the practice of Planting time. Further regarding adoption of post planting practices of Pomegranate cultivation, 67.50 % of growers have fully adopted the practice of chemical fertilizers, 65.00% of growers have fully adopted the practice of irrigation, 55.83 percent of growers had fully adopted the practice of Organic manures, 57.50 % of growers had fully adopted the practice of pest management and 55.00 % of growers had fully adopted the practice of disease management. Regarding adoption of post-harvest practices of Pomegranate cultivation, 70.00 % of growers had fully adopted the recommended resting practices, 50.00% of growers had fully adopted the recommended post harvest techniques and about 49.17 of respondents fully adopted the recommended harvesting practices.

KEYWORDS: Adoption, Pomegranate, Pre planting, Post planting and Post harvesting.

INTRODUCTION

Pomegranate (*Punica granatum* L.) commonly known as Anar, Dalim, Matulum is an important fruit of tropical and subtropical regions of India. The wide adaptability, hardy nature, low maintenance cost, stable and high yields, fine table and therapeutic values, better keeping quality and possibilities to keep the plants into rest period when there is scarcity of irrigation water are some of the qualities which make this fruit crop ideally suitable for semi-arid and arid regions. Karnataka is one of the progressive states of India with great potential for development of fruits crops. The state is blessed with 10 different agro climate regions suitable for growing variety of fruits all round the year, Karnataka stands fifth position in area and production of fruits. In Karnataka, pomegranate occupies an area of 15.10 thousand hectares with the production of 150.30 thousand million tonnes (Anon, 2013). The predominant pomegranate growing districts are Koppal, Bagalkot, Bijapur, Raichur, Belgaum, Bellary, Chitradurga and Dharwad. In Koppal district, Pomegranate is being grown on commercial scale. The area under pomegranate in the district is 1683.00 ha with the production of 14029.00 tonnes during 2012-13. Dry land horticulture picking up fast in the Koppal district, In spite of this still there is a lot of scope in increasing production, productivity and profitability to this crop by adopting improved cultivation practices, besides evolving proper marketing strategies to enhance profit margin and total income to improve the living standards of the farmers of their dry region. In this background the present study was

taken up with the specific objective *i.e.* to assess the adoption pattern followed by the pomegranate growers.

METHODOLOGY

The study was conducted in Koppal district of Karnataka state during 2012-13. There are four taluks in koppal district *viz.*, Koppal, Gangavathi, Kushtagi and Yelburga. Among these two taluks *viz.*, Kushtagi and Yelburga were selected for the study. Research design used for the study was ex-post-facto technique. Six villages in each selected taluks were selected randomly and from each village 10 farmers were selected randomly making total sample size 120. Data were collected using pre tested interview schedule. The data were analysed by using appropriate statistical tools. Schedule was prepared based on the package of practice developed by the University of Horticulture Sciences, Bagalkot and consulting the experts. The procedure followed by Naveen (2012) was used in this study with slight modifications All the management practices were elicited and divided all practices into majorly three categories *viz.*, Pre-planting practices of Pomegranate cultivation, Post-planting practices of Pomegranate cultivation and Post-harvest practices of Pomegranate cultivation. The scores were assigned for the adoption of each of the recommended practices by farmers are like Full adoption (2), Partial adoption (1) and for Non adoption (0). The respondents were grouped in to three categories namely Low, Medium and High by using mean and standard deviation as a measure of check.

RESULTS & DISCUSSION

Overall Adoption of Recommended Practices of Pomegranate Cultivation

With respect to overall adoption of recommended practices of Pomegranate cultivation followed by respondents, it was observed from the Table I that about 38.33% of the farmers belonged to high adoption category, while 31.67 % of the respondents belong to low adoption category and medium adoption category (30.00%). This might be due to the fact being that pomegranate is a commercial and highly remunerative horticulture crop

which involves high investment and highly skilled labour to get good yield. Therefore, the growers who were intending to take up this crop seek as much information as possible from available resources in addition to their growing experience. Dependency on agriculture as main occupation was the cause for this phenomenon. Comprehension limits the action of the individual as it is the basic for any individual to think about pros and cons in making a decision to adopt or reject the practices, hence reasons for more number of the pomegranate growers were under high adoption category.

TABLE I: Overall Adoption of Recommended Practices of Pomegranate Cultivation (n=120)

| Sl. No. | Adoption pattern | Criteria | Number | Percent |
|---------|------------------|-----------------------|--------|---------|
| 1. | Low | Up to 23.24 score | 38 | 31.67 |
| 2. | Medium | 23.24 to 26.64 score | 36 | 30.00 |
| 3. | High | More than 26.64 score | 46 | 38.33 |
| | Total | | 120 | 100.00 |

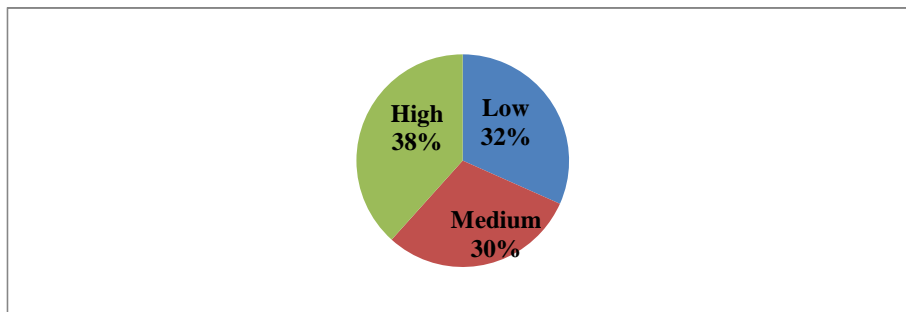


FIGURE I: Overall Adoption of Recommended Practices of Pomegranate Cultivation

Adoption of Pre-Planting Practices of Pomegranate Cultivation

Table II explained the adoption of pre-planting practices of pomegranate cultivation. Cent % of the respondents had fully adopted the practices like variety, spacing and pit size. Whereas, 75.83%, 75.00% and 60.00% of respondents had fully adopted the practices like age of seedling while planting, planting time and planting

materials, respectively and 10.83 % of respondents had not adopted the practice like planting time. This may be due to the fact that study area is having suitable conditions required for the pomegranate cultivation besides farmers convinced that these practices are essential for crop growth. Regarding variety cent % of farmers adopted Bhagwa variety because it is a promising variety giving a good yield and withstands the drought condition.

TABLE II: Adoption of Pre-Planting Practices of Pomegranate Cultivation (n=120)

| Sl. No. | Practice | Adoption | | | | | |
|---------|--------------------------------|---------------|--------|------------------|-------|--------------|-------|
| | | Full Adoption | | Partial Adoption | | Non Adoption | |
| | | Number | % | Number | % | Number | % |
| 1. | Age of seedling while planting | 91 | 75.83 | 29 | 24.17 | 0 | 0.00 |
| 2. | Planting time | 72 | 60.00 | 35 | 29.17 | 13 | 10.83 |
| 3. | Variety | 120 | 100.00 | 0 | 0.00 | 0 | 0.00 |
| 4. | Spacing | 120 | 100.00 | 0 | 0.00 | 0 | 0.00 |
| 5. | Pit size | 120 | 100.00 | 0 | 0.00 | 0 | 0.00 |
| 6. | Planting material | 90 | 75.00 | 30 | 25.00 | 0 | 0.00 |

Adoption of Post-Planting Practices of Pomegranate Cultivation

Table III depicts that majority of respondents 67.50, 65.00 and 62.50 % belonged to full adoption category in case of chemical fertilizers, irrigation and disease pruning, respectively. Further, more than half of the respondents 57.50 %, 55.83 and 55.00 % had full adoption pertaining to pest management, organic manures and disease management, respectively. Whereas, 40.83% of the respondents were partially adopted the organic manures practices. Similarly, 34.17 % and 27.50 % of the farmers

partially practices of pruning and chemical fertilizers application, respectively.

Majority (67.50%) of the respondents had fully adopted the practices pertaining to chemical fertilizers. This is because of timely availability of fertilizers and adequate guidance regarding nutrient management in pomegranate cultivation. About 65.00% respondents belong to full adoption category of irrigation. This is due to the reason that in the study area most of the farmers adopted drip irrigation method in pomegranate cultivation, since drip irrigation helps in saving water and pomegranate crop

requires time to time irrigation Further, 62.50% of the respondents had fully adopted the practices regarding pruning and is because of awareness by the farmers about the importance of pruning which leads to the good quality of fruits and also due to sharing of experience and guidance received from progressive farmers. Further only about 57.50 and 55.00 % of farmers have fully adopted the

practices regarding pest and disease management. This signifies that the farmers lack the information about the pest and disease management. Hence the concerned scientists and extension personnel should focus on pest and disease management and transfer the related technologies and motivate the farmers to adopt the recommended practices.

TABLE III: Adoption of Post-Planting Practices of Pomegranate Cultivation (n=120)

| Sl. No. | Practice | Adoption | | | | | |
|---------|----------------------|---------------|-------|------------------|-------|--------------|------|
| | | Full Adoption | | Partial Adoption | | Non Adoption | |
| | | Number | % | Number | % | Number | % |
| 1. | Irrigation | 78 | 65.00 | 35 | 29.17 | 7 | 5.83 |
| 2. | Pest Management | 69 | 57.50 | 48 | 40.00 | 3 | 2.50 |
| 3. | Disease Management | 66 | 55.00 | 49 | 40.83 | 5 | 4.17 |
| 4. | Pruning | 75 | 62.50 | 41 | 34.17 | 4 | 3.33 |
| 5. | Chemical Fertilizers | 81 | 67.50 | 33 | 27.50 | 6 | 5.00 |
| 6. | Organic Manures | 67 | 55.83 | 49 | 40.83 | 4 | 3.33 |

Adoption of Post-harvest Practices of Pomegranate Cultivation

Table IV explains the adoption of post-harvest practices of pomegranate. Wherein, 70.00 %, 50.00 and 49.17 % of the respondents belonged to full adoption category pertaining to resting practices, post-harvest techniques and harvesting methods, respectively.

This signifies that only 49.17 of farmers have fully adopted the recommended harvesting methods. Further

only 50.00% of farmers have fully adopted the recommended post harvest practices. This is due to the lack of information about the post harvest practices. This trend of findings demands the concerned scientists and extension personnel to effectively transfer the post harvest technologies to the farmers and motivating the farmers to adopt the post harvest practices to get the good returns.

TABLE IV: Adoption of Post-harvest Practices of Pomegranate Cultivation (n=120)

| Sl. No. | Practice | Adoption | | | | | |
|---------|-------------------------|---------------|-------|------------------|-------|--------------|------|
| | | Full Adoption | | Partial Adoption | | Non Adoption | |
| | | Number | % | Number | % | Number | % |
| 1. | Resting practices | 84 | 70.00 | 30 | 25.00 | 6 | 5.00 |
| 2. | Harvesting methods | 59 | 49.17 | 55 | 45.83 | 6 | 5.00 |
| 3. | Post-harvest Techniques | 60 | 50.00 | 55 | 45.83 | 5 | 4.17 |

CONCLUSION

It could be concluded from the study that about 61.67 % of the respondents belong to low to medium adoption category. Hence, this demands the concerned scientists and extension personnel to impart adequate trainings using effective teaching methods about the Pomegranate cultivation practices like irrigation management, pest and disease management, nutrient management, pruning, resting practices, harvesting methods etc. Farmers must also be motivated to adopt the appropriate post harvest management practices which would enhance the shelf life of the fruit and gives good returns for the farmers

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