Research Article

# Impact of Improved Fruit Production Technology on the Status of Fruits Growers

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**Abstract**

Present study aimed to find out the impact of improved fruit production technology on farmers status in Sirsa district of Haryana. The parameters such as socio-economic profile, economy, living standard, awareness about new varieties etc. are the parameters which are affected by or which undergo changes as a result of impact of the implementation parameters. Fruit production had positive impact on farmer's status like, production increased after adopting improved fruits production technologies, quality of produce also increased and socio economic status of farmers also increased. Farmers' having positive image in the society due to cultivation of fruits, fruit cultivation is the sign of progressiveness.

**Keywords:** Impact, Improved fruit production technology, farmer's status.

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## Introduction

India is second largest producer of fruits in the world next to China and accounts for 8 per cent of the total world fruit production [1]. The cultivation of fruits has become a key driver for economic development in many of the states in the country. Among fruits citrus fruits occupy a prominent place in international market. The area and production of fruit crops in India is 6.1 million hectare and 8.6 mT respectively, In Haryana, the total area under kinnow cultivation is 19500 ha with the production of 3 lakh mT [2]. The productivity of Sirsa distt is higher than other districts of Haryana but lower than other states of India. Guava fruits are commercially grown throughout the country. Production of guava in Haryana is 1.03 lakh mT and area 10840 ha.

Although the area and production of both major crops is significant still the farmers face a lot of problem in production to marketing which need attention of the researchers, extension professionals as well as policy planner [3]. The study aim to enumerate the various constraints faced in production process of two important fruit crops (guava and kinnow) in south west zone of Haryana state [4]. No such study which accounts for constraints faced by fruit growers and them had been conducted in south west region. It was because of the familiarity of researcher with the local conditions, convenience and easy accessibility.

## Material and Methods

The study was conducted in purposively selected Sirsa district from south-west of Haryana state as this district has higher number of kinnow as well as guava growers and the maximum area under kinnow and guava production. Who have developed kinnow and guava orchards on their farms, were taken as respondents of the study. A total number of 80 farmers constituted the sample for the purpose of the study out of them 40 were kinnow growers and 40 were guava growers. Impact can be described as any condition or situation which impede, restrict any activity to find out impact of improved fruits production technology on small and marginal farmers, an inventory of impact was obtained on the basis of available literature, personal experience, discussion with experts and farmers growing fruits. The primary data was treated with frequency and percentage for presentation of result.

## Results and Discussion

**Table 1** indicates that after adopting improved fruit production technologies, 72.50 % of farmers were agreed with the statement that their field/production has increased. When asked, 77.50 % of the respondents agreed that they were aware about advanced fruit production technology and they also agreed with the statement that fruit production

technologies have an impact on quality of fruit. Similarly, a varied percentage of guava growers agreed upon that improved fruit production technologies proved to be profitable (82.50 %), effect on per capita consumption (57.50 %), guided their fellow farmer about profitable fruit production technologies (67.50 %), improved fruit production technology decreases labour and ultimately farm cost (42.50 %) [5]. Getting high prices in market due to quality produce (90 %), helpful in providing additional source of income to them (10 %). Almost half of the farmers i.e. 52.50 % were agreed with the statement that improved fruit production technologies have increased the nutrient up take efficiency of plants and a similar number of respondents agreed that their non-farm expenditure increased after adopting improved fruit production technology [6]. About 47.50 % of the respondents were agreed with the statement that these improved fruit production technologies are eco-friendly. 62.50 % of the farmers believed that it may raised their socio-economic status. Almost 80 % of farmers experienced an easy sale of products in the market due to 30 quality produce. Only 17.50 % have raised the nursery by using these fruit production technologies. 65 % experienced gain in their income, the only down neck experience was that none of the respondents received any award [7].

**Table 1** Impact of improved fruit production technology on the status of guava growers (n=40)

| Sr. No. | Particular | Frequency | Percentage |
|---|---|---|---|
| 1. | Whether your yield/production increased after adopting improved fruit production technologies. | 29 | 72.50 |
| 2. | Whether fruit production technologies have any impact on quality of fruit. | 31 | 77.50 |
| 3. | Do you think that improved fruit production technologies proved to be profitable? | 33 | 82.50 |
| 4. | Does the advancement in fruit production technologies affect the required per capita consumption? | 23 | 57.50 |
| 5. | Are you aware about advanced fruit production technologies? | 31 | 77.50 |
| 6. | Have you aware any farmer about these fruit production technologies. | 27 | 67.50 |
| 7. | Is there any decrease in labour and ultimately farm cost in adopting these fruit production technologies? | 17 | 42.50 |
| 8. | Are you getting high prices in market due to quality produce? | 36 | 90.00 |
| 9. | Do you think it is also helpful in arising any additional source of income like nursery raising etc. | 4 | 10.00 |
| 10. | Do you consider that there is any type of increase in nutrient uptake in plants? | 21 | 52.50 |
| 11. | Are these fruit production technologies eco-friendly. | 19 | 47.50 |
| 12. | Due to increase in quality do you believe that selling your value added products in market have become easier? | 32 | 80.00 |
| 13. | Have you raised any nursery by using these fruit production technologies? | 7 | 17.50 |
| 14. | Do you possess more material in comparison to past after adopting these fruit production technologies. | 28 | 70.00 |
| 15. | By using these fruit production technologies do you think your socio-economic status has increased. | 25 | 62.50 |
| 16. | Have your sources of income increased after adopting these fruit production technologies. | 26 | 65.00 |
| 17. | Have you purchased any farm power machinery after adopting the improved fruit production technology? | 28 | 70.00 |
| 18. | Has your non-farm expenditure increased after adopting improved fruit production technology? | 21 | 52.50 |
| 19. | Are these improved practices helpful in rapport development among society? | 23 | 57.50 |
| 20. | Whether your fellow farmer approach for your advice on fruit production technology. | 22 | 55.00 |

From **Table 2** it is revealed that 82.50 per cent of the farmers experienced increase in yield after adopting improved fruit production technologies. As many as 72.50 per cent of the respondents were agreed with the statement that the quality of the fruits was improved after adopting improved fruit production technologies, and a similar number of farmers told that their status has increased in the society. The 85 per cent of the respondents were aware

about the improved fruit production technologies, while only 57.50 per cent being aware of the improved fruit production technologies gave the information to their fellow farmers.

**Table 2** Impact of improved fruit production technology on the status of kinnow growers (n=40)

| Sr. No. | Particular | Frequency | Percentage |
|---|---|---|---|
| 1. | Whether your yield/production increased after adopting improved fruit production technologies. | 33 | 82.50 |
| 2. | Whether fruit production technologies have any impact on quality of fruit. | 29 | 72.50 |
| 3. | Do you think that improved fruit production technologies proved to be profitable? | 31 | 77.50 |
| 4. | Does the advancement in fruit production technologies affect the required per capita consumption? | 21 | 52.50 |
| 5. | Are you aware about advanced fruit production Technologies. | 34 | 85.00 |
| 6. | Have you aware any farmer about these fruit production technologies. | 23 | 57.50 |
| 7. | Is there any decrease in labour and ultimately farm cost in adopting these fruit production technologies? | 19 | 47.50 |
| 8. | Are you getting high prices in market due to quality produce? | 32 | 80.00 |
| 9. | Do you think it is also helpful in arising any additional source of income like nursery raising etc. | 17 | 42.50 |
| 10. | Do you consider that there is any type of increase in nutrient uptake in plants? | 11 | 27.50 |
| 11. | Are these fruit production technologies eco-friendly. | 26 | 65.00 |
| 12. | Due to increase in quality do you believe that selling your value added products in market have become easier? | 33 | 82.50 |
| 13. | Have you raised any nursery by using these fruit production technologies? | 5 | 12.50 |
| 14. | Do you possess more material in comparison to past after adopting these fruit production technologies. | 35 | 87.50 |
| 15. | By using these fruit production technologies do you think your socio-economic status has increased. | 29 | 72.50 |
| 16. | Have your sources of income increased after adopting these fruit production technologies. | 33 | 82.50 |
| 17. | Have you purchased any farm power machinery after adopting the improved fruit production technology? | 25 | 62.50 |
| 18. | Has your non-farm expenditure increased after adopting improved fruit production technology? | 21 | 52.50 |
| 19. | Are these improved practices helpful in rapport development among society? | 27 | 67.50 |
| 20. | Whether your fellow farmer approach for your advice on fruit production technology. | 22 | 55.00 |

**Figure 1** Farmers showing the fruits of guava in his orchard

About half of the respondents i.e. 47.50 percent were agreed with the statement that improved fruit production technologies reduce labour cost and ultimately farm cost [8]. Eighty per cent of the farmers were getting higher prices in the market for their quality produce. As many as 42.50 per cent were generating additional source of income like nursery raising besides this, 27.50 per cent were of the opinion that nutrient uptake in plants has increased. The 65 per cent respondents were considering these technologies eco-friendly. About 87.50 per cent were having more material possession in comparison to their earlier. The 62.50 per cent farmers purchased their own farm power machinery, while after adopting these improved fruit production technologies, the percentage of the farmers who agreed with the increased non-farm expenditure was 52.50 per cent. About 67.50 per cent of the farmers experienced about rapport development in society [9]. 55.00 per cent of the farmers experienced that other farmer has started approaching them for advice for the improvement on their farm. There was not even a single kinnow growing farmer who could get any award. There were only 12.50 per cent who have raised nursery by using these fruit production technologies [10].

**Figure 2** Farmers showing the fruits of kinnow in his orchard

The findings on the type and magnitude of relationship of selected variables of personality traits with the adoption level of guava and Kinnow growers are represented in **Table 3**. The coefficient of correlation as statistically worked out indicate a positive and significant correlation between adoption level of fruits grower and the respective variables viz. education, irrigation facilities, extension contact and scienticism/fatalism with corresponding value of 0.388, 0.316, 0.326 and 0.407, respectively which show that as the farmers level of education, irrigation facilities, extension contact and degree of scienticism increases their adoption level also increases. However, rest of the variables did not cause any significant variation in the adoption level of guava and Kinnow growers.

**Table 3** Association between personal attributes of fruits growers and their adoption level

| Variables | Adoption |
|---|---|
| Age | 0.087 |
| Land holding | 0.022 |
| Social participation | 0.289 |
| Education | 0.388* |
| Irrigation facilities | 0.316* |
| Change proneness | 0.230 |
| Socio-economic status | 0.021 |
| Extension contact | 0.326* |
| Mass media exposure | 0.036 |
| Scienticism/fatalism | 0.407** |
| * Significant at 0.05 level of probability | |
| ** Significant at 0.01 level of probability | |

## Conclusion

Thus it can be concluded that farmers experienced increase in yield after adopting improved fruit production technologies, quality of the fruits was improved after adopting improved fruit production technologies, status has increased in the society. About half of the respondents were agreed with the improved fruit production technologies reduce labour cost and ultimately farm cost, farmers were getting higher prices in the market for their quality produce, generating additional source of income like nursery raising besides this. Among the various attributes of kinnow and guava growers, the socio-economic status, mass media exposure, farm size and extension contact were found to be significant and positively correlated with the adoption level of kinnow and guava growers. This means that kinnow and guava growers with high socio-economic status, higher mass media exposure, and more extension contact were having high level of adoption of the recommended practices for kinnow and guava cultivation.

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