

## CONSTRAINTS PERCEIVED BY THE FARMERS IN ADOPTION OF RECOMMENDED PAPAYA PRODUCTION TECHNOLOGY

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### ABSTRACT

Papaya (*Carica papaya*) is an important fruit and deserves greater attention due to its high nutritive value and production potentiality. The Chittorgarh district is selected for present study. The area of papaya cultivation is increasing very fast. In present study, three villages were selected in Chittorgarh Panchayat Samitee. Seven farmers were selected from each village. The number of papaya growers was decided for each village by proportionate sampling method. The farmers of each village were selected by simple random technique. In this way a sample of 21 papaya growers were selected from all the three selected villages of Chittorgarh Panchayat samitee. The constraints were categorized into technological, economical and general constraints. In technological constraints, high losses by insect, pests and diseases incidence and losses by frost and hot waves were main constraints. High cost of insecticides and pesticides and perishable nature of produce were the main constraints under economical constraints while threat from wild animal's particular Blue Bull and stray animals and high fluctuation in market prices were the main constraints under general constraints.

### INTRODUCTION

Papaya (*Carica papaya*) is an important fruit of the tropics and subtropics and deserves greater attention due to its high nutritive value and production potentiality. The areas and production of papaya in the last few decades have increased sharply owing to wide range of adaptability, increased demand of fruits and papain and also for high economic return per unit area. Papaya is quick growing and starts bearing within 8-10 months of transplanting. The production of papaya is increasing in the Chittorgarh district but productivity was low and mostly orchards are damaged by heavy infestation of insect, pest and diseases, wild animals particularly blue bulls, high post harvest losses, poor management of the orchards, unavailability of quality planting of improved varieties. These constraints may be of different types and might be perceived by the farmers with different magnitude. Considering the significance of constraints it was felt necessary to find out the major barricades which hinder the adoption of recommended papaya production technology among papaya growers in the district.

### RESEARCH METHODOLOGY

The present study was conducted in Chittorgarh district of Rajasthan. The present investigation was conducted in Chittorgarh Panchayat Samitee of the district. A list of the entire papaya growing village was prepared. From the list three villages were selected for the study. The number of papaya growers was decided for each village by proportionate sampling method. The farmers of each village were selected by simple random techniques. In this way a sample of 21 papaya growers were selected from all the three selected villages of Chittorgarh Panchayat samitee.

The constraints as perceived by respondents were scored on three point continuum i.e. 3, 2 and 1 on the basis of magnitude of the problem. The responses were recorded and converted into mean per cent score and constraints were ranked accordingly.

### RESULTS AND DISCUSSION

In the present study efforts were made to categories the major constraints into suitable

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categories viz., technological, economical and general constraints as perceived by the papaya growers. The data related to each category of constraints are presented here under.

**Table 1. Technological constraints as perceived by the papaya growers**

S.No.	Technological constraints	Papaya growers	
		MPS	Rank
1.	High losses by insect pests and diseases incidence	85.71	1
2.	Un-availability of improved and authentic varieties of papaya	61.90	4
3.	Lack of knowledge about recommended row to row and plant to plant spacing	38.09	7
4.	Losses by frost and hot waves	76.19	2
5.	Inadequate knowledge of manure and fertilizers application	52.38	5
6.	Inadequate irrigation water	47.62	6
7.	Lack of skill in using drip irrigation system	66.67	3

MPS=Mean per cent score

The data in the table 1 reveal that high losses by insect pests and diseases incidence and losses by frost and hot wave are main constraints and papaya growers ranked them 1 and 2. Other constraints viz., lack of skill in using drip irrigation system, un-availability of improved and authentic varieties of

papaya, inadequate knowledge of manure and fertilizers application were accorded 3, 4 and 5 ranks in the rank order, respectively. Whereas, inadequate irrigation water and lack of knowledge about recommended row to row and plant to plant spacing were ranked 6 and 7, respectively.

**Table 2. Economical constraints as perceived by the papaya growers**

S.No.	Economical constraints	papaya growers	
		MPS	Rank
1.	High cost of establishment of orchard	90.48	3
2.	High prices of planting materials	80.95	5
3.	High cost of hired labours	71.43	4
4.	High cost of transport of fruit to nearby markets	66.67	6
5.	High cost of insecticides and pesticides	57.14	1
6.	Perishable nature of produce	42.86	2

MPS=Mean per cent score

The data in the table 2 reveals that high cost of insecticides and pesticides, perishable nature of produce, high cost of establishment of orchard, high prices of planting materials were the main constraints faced by papaya growers in the study

area which were accorded 1, 2, 3 and 4 ranks by the respondents. On the other hand the constraints viz., high prices of planting material and high cost of transport of fruit to nearby markets were accorded 5 and 6 ranks in the rank order, respectively.

**Table 3. General constraints as perceived by the papaya growers**

S.No.	General constraints	Papaya growers	
		MPS	Rank
1.	Poor condition of farmers	61.90	4
2.	Small land holding	71.43	3
3.	Threat from wild animals particular Blue Bull and stray animals	85.71	1
4.	Lack of scheme for boundary wall of orchards	52.38	5
5.	High fluctuation in market prices	80.95	2
6.	Mis-practice of middle men	42.86	6

MPS=Mean per cent score

The data in the table 3 reveal threat from wild animals particular Blue Bull and stray animals and

high fluctuation in market prices were the main constraints and papaya growers ranked them 1 and

2, respectively. While, small land holding, poor condition of farmers, lack of scheme for boundary wall of orchards and mal-practice of middle men are other constraints and respondents given ranked them 3, 4, 5, and 6, respectively.

## CONCLUSION

It was observed that high losses by insect, pest and diseases incidence was most important constraint (85.71 %) and followed by losses by frost and hot waves (76.19 %) in technological constraints. In economical constraints, high cost of insecticides and pesticides (90.48 %) was most important constraint and it was ranked 1st position. This was followed by perishable nature of papaya (80.95 %), while in general constraints, threat from wild animals particularly blue bull and stray animals (85.71 %) was ranked 1st by growers. This was followed by high fluctuation in market prices (80.95%)

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