



CONSTRAINT ANALYSIS IN MAIZE PRODUCTION IN KARIMNAGAR DISTRICT OF TELANGANA

D.A. Rajini Devi

Scientist

RARS, PJTSAU

Jagtial - 505327, Telangana (India)

R. Uma Reddy

Associate Director of Research

RARS, PJTSAU

Jagtial - 505327, Telangana (India)

P. Sadvi

Scientist

RARS, PJTSAU

Jagtial - 505327, Telangana (India)

N. Navatha

Scientist

RARS, PJTSAU

Jagtial - 505327, Telangana (India)

Abstract

Maize is one of the major crops grown in Karimnagar district of Telangana. The present study was undertaken to examine constraints in the production and marketing of maize. The findings of the study revealed that the sample farmers opinioned occurrence of pests and diseases i.e. fall army worm incidence was the major problem in the study area with a garette score of 76.1 which was followed by unavailability of labour during the peak period with a score of 66.9. In the next order high cost of plant protection chemicals, high cost of fertilizers and less seed viability constraints were observed. Suggestions in production and marketing of maize farmers were also taken and ranked. Better remunerative prices to maize production was the major suggestion given by the sample farmers with a score of 72.9 which was followed by mechanisation in maize and timely supply of inputs.

Key words: Constraints, Occurrence, Incidence, Diseases, Viability and Suggestions.

Introduction

Maize (*Zea mays* L.) crop is widely cultivated throughout the world and a greater weight of maize is produced each year than any other grain. In Karimnagar maize is grown in 16810 ha with a production of 101302 Metric tonnes and yield of 6026 kg/ha in 2017-18. Improving maize production is considered to be one of the most important strategies for food security in India. Maize is also used as fodder for the cattle. The attributes that are considered for study determine the constraints faced by maize growers in production and marketing of maize. The objective of this study to identify constraints in production and marketing of maize in Karimnagar district of Telangana, India.

Materials and Methods

Purposive sampling was adopted for selection of district, Mandals and Villages. In first stage Karimnagar district was selected purposively because of large area under maize crop. In the next stage farmers growing KNMH-131 hybrid was selected purposively for rabi, 2018-19 from various villages and mandals of Karimnagar district with a sample of 60. Respondents were interviewed through personal interview. For data collection well designed and pre-tested interview scheduled was used. Collected data was analysed with the help of garette ranking technique.

Garette Ranking Technique

In the Garrett ranking technique, the respondents were asked to rank the factors or Problems and these ranks were converted into per cent position by using the formula

$$\text{Per cent position} = 100 * (R_{ij} - 0.5)$$

Where,

R_{ij} = ranking given to i th attribute by the j^{th} individual.

N_j = number of attributes ranked by the j^{th} individual.

By referring to the Garrett table, the per cent positions estimated were converted into scores.

Thus, for each factor the scores of the various respondents were added and the mean values were estimated. The mean values thus obtained for each of the attributes were arranged in descending order. The attributes with the highest mean value was considered as the most important one and the others followed in that order.

Results and Discussion

Multiple responses were taken to ascertain the constraints faced by the maize growers in production and marketing of maize. Various constraints are presented in Table 1

Table 1: Constraints in Maize production (n=60)

<i>Constraints</i>	<i>Garette score</i>	<i>Rank</i>
Unavailability of HYV	42.5	7
High cost of seed	24.1	9
Lack of technical knowledge	34.3	8
Occurrence of pest and diseases	76.1	1
High cost of plant protection chemicals	55.5	3
High cost of fertilizer	52.9	4
Labour unavailability	66.9	2
Less seed viability	52.05	5
Lack of irrigation water facilities	49.05	6

Source: Field survey

Among the various constraints, occurrence of pests and diseases was ranked first followed by unavailability of labour and high cost of plant protection chemicals. The garettescore was 76.1 for the occurrence of pests and diseases which was mainly due to the newly introduced pest i.e. fall army worm. In the next order, unavailability of labour with a garette score of 66.9 was observed which was inconformity with the results of Krishna in his study on "Constraints in the Production and Marketing of Maize in Karimnagar District of Telangana, India", 2018. Later, high cost of plant protection chemicals with garette score of 55.5 followed by high cost of fertilizers were there.

Suggestions opined by maize growers to overcome the problems were calculated with the help of garette ranking technique and presented in Table 2.

Better remunerative prices to maize production was the major suggestion given by the sample farmers with a score of 72.9 which was inconformity with the results of Krishna in his study on "Constraints in the Production and Marketing of Maize in Karimnagar District of Telangana, India", 2018 followed by mechanization in Maize as the hybrid needs more labour for harvesting and threshing which was followed by timely support of inputs to the crop and reasonable prices to the inputs.

Table 2: Suggestion made by maize growers in production and marketing of maize (n=60)

<i>Particulars</i>	<i>Garette score</i>	<i>Rank</i>
Remunerative prices to crop	72.9	1
Timely supply of inputs	59.9	3
Timely availability of loan	38.01	8
Mechanization in maize	66.9	2
Develop high yielding varieties	57.5	5
Reasonable input cost	58.5	4
Improved marketing facilities	43.05	7
Need of soil health cards	31.02	9
Need for society for collective action	25.01	10
Technical knowledge dissemination	46.8	6

Source: Field survey

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