



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; 11(12): 3221-3223
© 2022 TPI
www.thepharmajournal.com
Received: 02-09-2022
Accepted: 06-10-2022

Dr. Yogendra Kumar Singh
Associate Professor (Agri Ext.),
Department of Technology
Transfer, MGCGVV Chitrakoot,
Satna, Madhya Pradesh, India

Ajai Kumar Yadav
Research Scholar, Department of
Technology Transfer, MGCGVV
Chitrakoot, Satna, Madhya
Pradesh, India

Dr. Beena Singh
Guest Lecturer, Department of
Technology Transfer, MGCGVV
Chitrakoot, Satna, Madhya
Pradesh, India

Adoption level of farmers on recommended maize cultivation technology in Chhindwara, district M.P.

Dr. Yogendra Kumar Singh, Ajai Kumar Yadav and Dr. Beena Singh

Abstract

The present study was conducted in the Bichhua block of Chhindwara District of M.P. with selection of 80 respondents. From each village 20 respondents are selected for the study. It has become imperative to examine the adoption of improved maize cultivation technologies and factors affecting it. Keeping this in view, the present investigation was planned and carried out with the following specific. To collect data, pre-structured schedule with the help of interview. The collected data was quantified, classified, tabulated and presented on frequencies, percentage, Rank and mean score. Result of the study revealed that maximum number of the respondents have highest complete adoption of level of extent of improved maize cultivation technology. Constraints of the technologies by the maize growers may be due to face the constraint of high cost of insecticides and herbicides, Unaffordable cost of inputs, Lack of skill of management of maize production technologies practices, Costly transport services, constraint of lack of training of cultivation technology.

Keywords: Adoption, production technologies, maize growers

1. Introduction

Maize (*Zea mays* L) is one of the most versatile emerging crops having wider adaptability under varied agro-climatic conditions. Globally, maize is known as queen of cereals because it has the highest genetic yield potential among the cereals. In India, maize is the third most important food crops after rice and wheat. According to advance estimate it is cultivated in 8.7 m ha (2010-11) mainly during *Kharif* season which covers 80% area. Maize in India, contributes nearly 9% in the national food basket and more than Rs. 100 billion to the agricultural GDP at current prices apart from the generating employment to over 100 million man-days at the farm and downstream agricultural and industrial sectors. In addition to staple food for human being and quality feed for animals, maize serves as a basic raw material as an ingredient to thousands of industrial products that includes starch, oil, protein, alcoholic beverages, food sweeteners, pharmaceutical, cosmetic, film, textile, gum, package and paper industries etc. The maize is cultivated throughout the year in all states of the country for various purposes including grain, fodder, green cobs, sweet corn, baby corn, pop corn in peri-urban areas. The predominant maize growing states that contributes more than 80% of the total maize production are Andhra Pradesh (20.9%), Karnataka (16.5%), Rajasthan (9.9%), Maharashtra (9.1%), Bihar (8.9%), Uttar Pradesh (6.1%), Madhya Pradesh (5.7%), Himachal Pradesh (4.4%). Apart from these states maize is also grown in Jammu and Kashmir and North-Eastern states. Keeping this point in view, the study was conducted with following specific objectives to find out the adoption of recommended maize cultivation technologies by the farmers.

2. Methodology

The study was conducted in district Chhindwara of M.P. District has 13 Blocks out of these Bichhua block was purposively selected and out of 147 village of Bichhua Block only four villages namely Ulhawadi, Zamata, Samarboh and Dokli Kalan were selected for the study. From each village 20 respondents are selected for the study. A total number of 80 respondents were finally chosen for the study. The data was obtained through pre-tested structured schedule with the help of interview. The collected data was quantified, classified, tabulated and presented on frequencies, percentage, Rank and mean score.

2.1 Objectives: This research aimed to study the adoption of farmers on recommended maize cultivation technologies & to study the constraints faced in adoption of improved maize

Corresponding Author:
Dr. Yogendra Kumar Singh
Associate Professor (Agri Ext.),
Department of Technology
Transfer, MGCGVV Chitrakoot,
Satna, Madhya Pradesh, India

production technologies.

3. Result and Discussion

The data presented in table No. 1. shows that 92.5 percent respondents have complete adoption and 7.5 percent have partial adoption of kharif maize cultivation with Mean Score 1.07 and Rank XIII. 96.26 percent respondents have complete adoption and 3.75 percent have partial Adoption of maize cultivation in kharif season for maximum production with Mean Score 1.03 and Rank XIV. 60 percent respondents have complete adoption and 40 percent have partial adoption of maize cultivation for the purpose of grain with Mean Score 1.4 and Rank IX. 67.5 percent respondents have complete adoption, 28.75 percent have partial adoption and 3.75 have no adoption of recommended soil for maize cultivation with Mean Score 1.36 and Rank V. 85 percent respondents have complete adoption and 15 percent have partial adoption of land free from water logging with Mean Score 1.15 and Rank VII. 92.5 percent respondents have complete adoption and 7.5 percent have partial adoption of recommended sowing time of kharif season maize crop with Mean Score 1.07 and Rank XIII. 790 percent respondents have no adoption and 10 percent have partial adoption of Rabi season maize crop with Mean Score 2.9 and Rank II. 100 percent respondents have no adoption of springs season maize with Mean Score 3 and Rank I. 91.25 percent respondents have complete adoption and 8.75 percent have partial Adoption of recommended seed

rate of maize for grain purpose cultivation with Mean Score 1.08 and Rank XII. 100 percent respondents have no adoption of maize cultivation for green compost with Mean Score 3 and Rank I. 70 percent respondents have no adoption and 30 percent have partial Adoption of maize cultivation for fodder with Mean Score 2.7 and Rank III. 100 percent respondents have no adoption of maize cultivation for baby corn and pop corn with Mean Score 3 and Rank I. 83.75 percent respondents have complete adoption and 13.75 percent have partial Adoption and 2.5 percent Adoption of seed treatment with Mean Score 1.18 and Rank VI. 90 percent respondents have complete adoption and 10 percent have partial adoption of recommended sowing methods with Mean Score 1.1 and Rank XI. 47.5 percent respondents have partial adoption and 40 percent have complete adoption and 12.5 percent adoption of recommended dose of FYM /1 hac.with Mean Score 1.47 and Rank IV. 92.5 percent respondents have complete adoption and 5 percent have partial Adoption and 2.5 percent have no adoption of recommended time of application of organic manure in the field with Mean Score 1.1 and Rank XI. 86.25 percent respondents have complete adoption and 7.5 percent have partial Adoption and 6.25 percent have no adoption of recommended dose of NPKwith Mean Score 1.2 and Rank X. 86.25 percent respondents have complete adoption and 13.75 percent have partial adoption with Mean Score 1.13 and Rank VIII.

Table 1: Distribution of respondents according to extent of Adoption of improved maize cultivation technology

S.No.	Parameters	Complete Adoption		Partial Adoption		No Adoption		Mean Score	Rank
		F	%	F	%	F	%		
1.	kharif maize cultivation	74	92.5	6	7.5	00	00	1.07	XIII
2.	kharif season for maximum production	77	96.26	3	3.75	00	00	1.03	XIV
3	Cultivation for the purpose of grain	48	60	32	40	00	00	1.4	IX
4	Soil for maize cultivation	54	67.5	23	28.75	3	3.75	1.36	V
5	Land free from water logging	68	85	12	15	00	00	1.15	VII
6	Sowing time of kharif season maize crop	74	92.5	6	7.5	00	00	1.07	XIII
7	Rabi season maize crop	00	00	08	10	72	90	2.9	II
8	Springs season maize	00	00	00	00	80	100	3	I
9	SSeed rate of maize for grain purpose cultivation	73	91.25	7	8.75	00	00	1.08	XII
10	Maize cultivation for green compost	00	00	00	00	80	100	3	I
11	Cultivation for fodder	00	00	24	30	56	70	2.7	III
12	Cultivation for baby corn and pop corn	00	00	00	00	80	100	3	I
13	Seed treatment	67	83.75	11	13.75	2	2.5	1.18	VI
14	Recommended sowing methods	72	90	8	10	00	00	1.1	XI
15	Dose of FYM /1 hac.	32	40	38	47.5	10	12.5	1.47	IV
16	Time of application of organic manure in the field	74	92.5	04	5	02	2.5	1.1	XI
17	Dose of NPK	69	86.25	06	7.5	05	6.25	1.2	X
18	Dose of zink/ hac.	69	86.25	11	13.75	00	00	1.13	VIII

3.1 Constraints faced by farmers in improved maize cultivation technology

The data presented in table 2 shows that 53.75 percent respondents face the constraint of high cost of insecticides and herbicides followed by 52.5 percent the constraints of unaffordable cost of inputs, 47.5 percent who face the constraint of lack of skill of management of maize production technologies practices, 46.25 percent who face the constraint of lack of training of cultivation technology and Costly transport services, 45 percent who face the constraint of lack

of Poor access to market information, 43.75 percent who face the constraint of lack of information of recommended varieties, 42.5 percent who face the constraints of Lack of storage facility, 41.25 percent who face the constraints of Lack of knowledge about improved method of irrigation and Unavailability of improved varieties of seeds at the time of sowing, 40 percent who face the constraint of Lack of knowledge of weed control and herbicides and 36.25 percent who face the constraint of lack of Problem of irrigation water.

Table 2: Distribution of respondents according to the constraints faced by farmers in improved maize cultivation technology

S.No.	Constraints	Frequency	%
1	Unavailability of improved varieties of seeds at the time of sowing	33	41.25
2	Lack of knowledge of weed control and herbicides	32	40
3	Lack of skill of management of maize production technologies practices	38	47.5
4	Lack of information of recommended varieties	35	43.75
5	Unaffordable cost of inputs	42	52.5
6	High cost of insecticides and herbicides	43	53.75
7	Lack of storage facility	34	42.5
8	Costly transport services	37	46.25
9	Poor access to market information	36	45
10	constraint of lack of training of cultivation technology	37	46.25
11	Problem of irrigation water	29	36.25
12	Lack of knowledge about improved method of irrigation	33	41.25

4. Conclusion

The following conclusion has been drawn from the finding of the study. The recommended maize production technologies are highest that 96.26 percent respondents have complete adoption of maize cultivation in kharif season for maximum production. Overall it was observed that highest complete adoption of level of extent of improved maize cultivation technology. 53.75 percent respondents face the constraint of high cost of insecticides and herbicides. It is suggested that suggest to quality seed should be made available in time with low cost, to provide training programme about maize cultivation technologies, to information about control measures of pest & disease should be provided through SMS service in time, government should provided the fertilizers and chemical at low cost and suggest to Subsidy on drip irrigation system should be increased.

5. References

1. Deshmukh RH. Knowledge & adoption of improved cultivation practices of kharif jowar by farmers in Nanded district, M. Sc. (Agri.) Thesis, VNMKV, Parbhani. Ekale, J.V.; c2014.
2. Kothari GL, Intodia SL, Sharma FL. Knowledge and Adoption of Maize Production Technology by the farmers Raj. J Extn. Edu. 2010;17&18:48-51.
3. Jadhav SR. Knowledge and adoption of recommended package of practices in rabi groundnut. M.Sc. (Agri.) Thesis, VNMKV; c2013.
4. Kothari GL, Intodia SL, Sharma FL. Knowledge and adoption of maize production technology by the farmers. Rajasthan Journal Extension Education. 2010;17(18):48-51.
5. Sifti, Vishakha Bansal. Adoption of improved maize production technologies among farm women of Udaipur district, Rajasthan The Pharma Innovation Journal. 2022;SP-11(9):1934-36
6. Vikas Chowhan, MV Srinivasa Reddy, Mohan Kumar TL. A study on extent of adoption of recommended production technologies by maize growers in Koppal district of Karnataka The Pharma Innovation Journal. 2021;SP-10(12):45-49.