



Research Article

KNOWLEDGE LEVEL OF FARMERS TOWARDS MUNGBEAN PRODUCTION TECHNOLOGY IN JAIPUR DISTRICT OF RAJASTHAN

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Abstract- Pulses are the main source of quality protein and a rich source of energy, minerals and certain vitamins. The study was conducted in Jaipur district of Rajasthan. Jaipur district comprises of sixteen tehsils, out of which 3 tehsils viz., Dudu, Phulera and Phagi were selected purposely. Out of selected Tehsil two gram panchayats were selected randomly from each tehsils and two revenue villages were selected from each selected gram panchayat on the basis of random sampling method. Thus, the total 12 villages were selected. After that we took total 120 mungbean growing farmers (respondents) were selected randomly through proportional allocation to the size of sample. The study found that three fourth of the farmers 72.50 per cent were categorized in medium knowledge level, whereas 15.87 per cent and 11.67 per cent were having low and high knowledge level about recommended production technology of mungbean. It was found that farmers possessed maximum knowledge regarding "Spacing" (81.66 MPS) and "high yielding varieties" (77.22 MPS) of mungbean crop, and farmers possessed less knowledge regarding "storage" aspects (42.85 MPS).

Keywords- Mungbean, Knowledge, Production, Technology

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Introduction

Pulses are the main source of quality protein and a rich source of energy, minerals and certain vitamins. They help in balancing the cereal dominated diet of low and middle income families by supplementing the essential amino acids profile of cereal proteins economically.

If we talk the legume crops than we found the maximum area covered area by the gram crop followed by mungbean so we talk about this in legume crops highest demand of this crop because off its excellent protein quality and high digestibility due to low flatulence. Providing balanced ration to the growing population of India Mungbean is a good option because of its high yielding potential. A quantum jump in the production of this crop can meet the expectations of the policy makers and nutritional planners.

In Rajasthan, mungbean is grown over 790185 hectare with the production of 23426 tonnes. Jaipur district has 60624 hectare area under mungbean cultivation and production 9579 tonnes, which is nearly 4.09 per cent of total mungbean production in Rajasthan[1] (Dept. of Agril. Rajasthan 2012-13). The productivity of Jaipur district is 158 kg/ha. There is a wide scope to improve and increase the mungbean production and productivity by enhancing the knowledge and adoption of recommended production technology by farmers.

Materials and Methods

The study was conducted in Dudu, Phagi and Phulera tehsils of Jaipur district of Rajasthan. Jaipur district was selected purposely on account of lowest productivity i.e. 158 kg/ha and tehsils were selected purposely because these tehsils have maximum area under mungbean crop in Jaipur district, Farmers were selected on

the basis of proportionate random sampling technique from each selected village making a total sample of 120 mungbean growers.

Before the collection of data interview schedule had prepared than personal interview has taken from respondent for fulfill our study after that data were tabulated and analyzed drawn after subjecting the data to statistical analysis, which led to the following findings.

Knowledge is a body of understood information. It has been considered as a prerequisite for adoption of technology in any field. The adoption behavior of an individual to a large degree depends upon his knowledge about the practices or technologies to be adopted. This section is devoted to assessment of knowledge of farmers about improved practices of mungbean cultivation. The knowledge index for each respondent was calculated by using the following formula:

$$KI = \frac{K}{P} \times 100$$

Where,

KI = Knowledge

K = Knowledge score obtained per practice

P = Possible maximum score per practice

To get an over view of the knowledge level, the farmers about knowledge recommended cultivation practices of mungbean were grouped into (i) low (ii) medium and (iii) high knowledge on the basis of calculated mean and standard deviation of the obtained knowledge scores by the respondents.

Result and Discussion

The knowledge level of farmers about recommended cultivation practices of Mungbean was measured with the help of knowledge test developed, which was used with slight modification for the study purpose.

Ten practices having 41 questions were included based on the opinions of agriculture experts in the schedule to measure the knowledge level of respondents about recommended cultivation practices of mungbean. The minimum and maximum scores, a respondent could secure on the knowledge test was 0 and 70, respectively. The knowledge scores assigned on the performance of respondents in the knowledge test. One mark was given to every right answer and zero mark for every wrong answer.

The mungbean growing respondents were grouped into three knowledge categories i.e. low, medium and high knowledge level about recommended cultivation practices of mungbean on the basis of calculated mean (\bar{X} = 38.72) and standard deviation (σ = 3.64) of the obtained knowledge scores by them are as follows:-

The [Table-1] revealed that 87 respondents (72.50 per cent) were found in medium knowledge groups, whereas, 19 respondents (15.83 per cent) were in low knowledge group and remaining 14 respondents (11.67 per cent) possessed high knowledge about the recommended cultivation practices of mungbean

Table-1 knowledge level of farmer about recommended Production technology of mungbean

N = 120

S. No.	knowledge level	Number of respondents	Percentage
1	Low(Score below 34.79)	19	15.83
2	Medium(Score from 34.79 to 42.79)	87	72.50
3	High(Score above 42.79)	14	11.67

\bar{X} = 38.72, σ = 3.64

Discussion

Adoption of farmers towards recommended technology of mungbean cultivation is directly or indirectly related to knowledge of mungbean growers. Hence, it was considered necessary to assess the knowledge of farmers about mungbean cultivation while the knowledge about the technology had influence on the decision making about its adoption. With this view in mind the knowledge test was applied to the farmers to know their knowledge about mungbean cultivation.

From the findings, it is clear that majority of the farmers (84.17%) had medium to high knowledge about recommended technology of mungbean cultivation, because most of the farmers were literate due to which they may read literature regarding recommended technology of mungbean cultivation. Most of farmers were using different sources of information and hence were gaining more knowledge. Their participation is also more in social organizations due to which they might gain more knowledge by discussing to the farmers group leaders about recommended technology of moonbeam. A small number of farmers having low knowledge (15.83%) might be attributed due to the fear among the farmers about innovation. The findings of the study are in conformity with the findings of [2] Patodiya (2013) and [3] Singh (2014).

Practice wise knowledge of farmers about recommended production technology of mungbean

The knowledge of farmers with regard to improved cultivation ten practices of mungbean was assessed. There ten practices were included in the knowledge schedule to assess the knowledge of respondents as given in table.

The table shows that farmers had maximum knowledge about spacing practice in mungbean (MPS 81.66), while minimum knowledge was about storage (MPS 43.03). The table further indicate that the farmers knowledge about use of high yielding varieties, fertilizer application, sowing of seed, harvesting, soil and field preparation, seed treatment, weed management and plant protection measures were found to be with MPS 77.22, 73.75, 59.44, 53.50, 50.93, 46.25, 43.70 and 43.03, respectively.

Table-2 Practice wise knowledge of farmers about recommended production technology of mungbean

N = 120

S. No.	Package of practices	MPS	Rank
1.	Soil and field preparation	50.93	VI
2.	high yielding varieties	77.22	II
3.	Seed treatment	46.25	VII
4.	Sowing of seed	59.44	IV
5.	Spacing	81.66	I
6.	Fertilizer application	73.75	III
7.	Weed management	43.75	VIII
8.	plant protection measures	43.03	IX
9.	Harvesting	53.03	V
10.	Storage	42.85	X

Discussion

From the findings it is evident that all the farmers were having knowledge about recommended "spacing". This might be due to the fact that majority of the farmers were literate and hence may have knowledge about the recommended "spacing" by reading the related literature and also they remain in contact with the neighbors, friends etc. and they may discuss about the "spacing" with the fellow farmers. Hence, they had good knowledge about the spacing of mungbean.

The farmers had low knowledge about "plant protection measures", "Seed treatment", "Weed management" and "Storage". This might be due to the reason that the farmers might not understand about the instructions written on the container of chemicals because of its complex language. They might also not get proper technical guidance. They might also not get proper technical guidance about these aspects. It might also be due to less contact of farmers with plant protection specialists. The findings of the study are in with the findings of [4] Jakhar (2014) and [5] Mane (2012).

Conclusion

The study found that three fourth of the farmers (72.50%) had fallen in medium category while 15.83 and 11.67 percent farmers had high and low knowledge of about recommended production technology of mungbean. It was observed that farmers possessed maximum knowledge regarding "Spacing" (81.66 MPS) of mungbean crop, farmers possessed less knowledge regarding "storage" aspects (42.85 MPS). The study revealed that the majority of farmers possessed maximum knowledge regarding "Spacing" of mungbean crop, farmers possessed less knowledge regarding "storage" aspects.

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Conflict of Interest: None declared

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