Research Article

KNOWLEDGE LEVEL OF FARMERS ABOUT RECOMMENDED PRODUCTION TECHNOLOGY OF RAPESEED AND MUSTARD CROP

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Abstract- Rajasthan ranked first among all states of India in terms of both area and production of rapeseed and mustard so there is no doubt to say mustard state to Rajasthan in spite of having a lot of technology, production of mustard is not up to the higher extent. Keeping this view, study was conducted in four gram panchayats of Tonk district, Rajasthan.An exhaustive list of mustard growers from selected villages were prepared and total 130 respondents were selected randomly through proportional allocation method. The study revealed that the majority of the farmers (92) were found to have medium knowledge level (70.77 per cent) whereas 16.15 per cent and 13.08 per cent of farmers were having high and low knowledge level, respectively about recommended production technology of rapeseed and mustard crop. It was also found that the respondents possessed maximum knowledge regarding "seed rate and recommended spacing" and "Time of sowing" of rapeseed and mustard production technology, respectively. Similarly, they possessed less knowledge regarding "seed treatment" and "plant protection measures", respectively.

Keywords- Mustard production technology, Knowledge.

Introduction

The important rapeseed mustard growing countries in the world are India, Canada, China, Pakistan, Bangladesh and Poland. India stands at third position after Canada and China in area and production. Rajasthan ranked first among all states of India in terms of both area and production of rapeseed, so there is no doubt to say mustard state to Rajasthan. The oilseeds sector made significant progress both in area expansion and production during the Technology Mission with an increase of 41% in area; 113% in production and 65% (570 to 931 kg/ha) in productivity. On average, the country produces around five million tons of rapeseed/mustard seed annually. Around 80 per cent of this is marketed by the small-scale sector in loose form, with only 20 per cent sold by the organized sector. A major portion of seeds enters the regulated markets and is purchased by oilseed crushers across the country [1]. There is a wide scope to improve and increase the rapeseed and mustard production and productivity by enhancing the knowledge and attitude of farmers towards recommended production technology of rapeseed and mustard crop. The various extension agencies are continuously making efforts to create awareness among farmers about such technologies, so that the growers may adopt the technologies and enhance crop production. But, it is observed from the yield data of past years that there is still wide gap between existing production and the production potential recommended by the agricultural universities. In this context, the present investigation was under taken to study the adoption of mustard technology by the farmers in Tonk District of Rajasthan [2].

Methodology

The study was conducted in Tonk district of Rajasthan. Tonk district two tehsils *viz.,* Uniyara and Deoli were selected purposely since this tehsil was identified as a potential area for the production of the mustard. Four gram panchayats from each tehsil and 16 villages were selected randomly. Respondents were selected randomly through proportional allocation to the size of sample. In total 130 respondents (rapeseed and mustard growing farmers) were selected finally for this study. The data on a well-prepared interview schedule were collected through personal interview method by the investigator himself. The knowledge level of farmers about recommended production technology of rapeseed and mustard crop was measured by using interview schedule. Thirteen practices having 46 questions were included in the schedule based on the opinions of agriculture experts to measure the knowledge level of respondents about recommended production technology of rapeseed and mustard crop. The minimum and maximum possible score, a respondent could secure on the knowledge test was 0 and 133, respectively. The knowledge score assigned on their performance of respondents in the knowledge test.

Result and Discussion

The knowledge score of respondents was measured and the respondents were grouped into three categories *viz.,* Low, Medium and High knowledge levels about recommended production technology of rapeseed and mustard crop on the basis of calculated mean (63.42) and standard deviation (12.97). The farmers who obtained knowledge score below 50.45 were categorized under low knowledge level and from 50.45 to 76.39 were categorized under medium knowledge level and score above 76.39 were categorized under high knowledge level about recommended rapeseed and mustard production technology.

The data in [Table-1] indicated that majority of the farmers (92) were found to have medium knowledge level (70.77 per cent) about recommended production technology of rapeseed and mustard crop whereas 16.15 per cent and 13.08 per cent of farmers were having high and low knowledge level, respectively. Out of

total, 83.85 per cent respondents were found under the category of medium and high knowledge level group. It reflects that the respondents had fair knowledge about recommended rapeseed and mustard production technology. The knowledge of farmers about recommended production technology of rapeseed and mustard crop were also analyzed separately. The relative importance of all the recommended 13 practices of rapeseed and mustard production technology were highlighted by ranking them on the basis of mean per cent score (MPS) of knowledge

Table-1 *Distribution of respondents according to their level about recommended rapeseed and mustard production technology* N=130

S.N.	Knowledge Category	Number of respondents	Percentage
1	High Knowledge	17	13.08
2	Medium Knowledge	92	70.77
3	Low Knowledge	21	16.15
	Total	130	100.00

$\bar{x}$= 63.42 $\quad$ σ = 12.97

Table-2 *Knowledge level of farmers about recommended production technology of rapeseed and mustard crop* N=130

S. No.	Package of practices	MPS	Rank
1.	High yielding varieties	73.14	III
2.	Soil and field preparation	57.56	VII
3.	Manure application	60.07	V
4.	Soil treatment and Crop rotation	54.48	VIII
5.	Seed rate and recommended spacing	92.67	I
6.	Seed treatment	23.07	XIII
7.	Time of sowing	76.92	II
8.	Fertilizer application	58.26	VI
9.	Irrigation management	40.25	X
10	Weed management	54.3	IX
11.	Plant protection measures	27.21	XII
12.	Physiological aspects/practices	31	XI
13.	Harvesting, threshing and storage	72.61	IV
	Overall	**55.53**	

The data in [Table-2] indicate that the average knowledge level about all the thirteen recommended practices of production technology of rapeseed and mustard crop was 55.53. The data also indicates that respondents possessed maximum knowledge about "Seed rate and recommended spacing" of rapeseed and mustard crop with 92.97 MPS and hence this practice was ranked first. The second highest knowledge was found about "Time of sowing" (76.92 MPS) and ranked second followed by "High yielding varieties" (73.14) and "Harvesting, threshing and Storage" (72.61 MPS) which were ranked third and fourth respectively. The data given in table also indicate that knowledge of farmers regarding other aspects like "Manure application", "fertilizer application", "Soil and field preparation", "Soil treatment and crop rotation", "Weed management", "Irrigation management", "Physiological aspects/practices" and "plant protection measures" were secured 60.07, 58.26, 57.56, 54.48, 54.30, 40.25, 31, 27.21 MPS and ranked fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, respectively. The least knowledge was found about the practice "seed treatment" (23.07) which was assigned the lowest rank i.e. thirteen.

CONCLUSION

Findings clearly showed that majority of the farmers (70.77 per cent) had medium knowledge level about rapeseed and mustard production technology, this might be due to the facts that most of the farmers were literate and well acquainted about the cost benefit ratio of the crop and they might have also considered this crop as a cash crop due to which such knowledge was observed. It was observed from the findings that good knowledge about recommended production technology of rapeseed and mustard crop was found about "Seed rate and recommended spacing", "Time of sowing", "High yielding varieties" and "Harvesting, threshing and storage" whereas medium knowledge about "Manure application", "Fertilizer application", "Soil and field preparation", "Soil treatment and crop rotation" "Weed management", and "Irrigation management" and "Physiological aspects/practices

was also recorded. Because most of the farmers were literate due to this they may read literature regarding rapeseed and mustard production technology. Although low knowledge level about "seed treatment" and "plant protection" was observed. This might be due to the facts that most of the farmers were unaware about importance/benefits of seed treatment.

Application of research: All the findings are useful for developing farmer friendly production technologies so illiterate and less educated farmers also can use and farmers should make aware about benefits of using new production technologies.

Research Category: Extension Education

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