



#### Research Article

# Knowledge of beneficiary farmers as compared to non-beneficiary farmers about recommended bajra production technology

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**SUMMARY:** Bajra is the major food crop of Rajasthan. This millet can be grown in sandy soils under rainfed conditions and hence, assumes importance in the arid region of Rajasthan. This food grain crop is also grown abundantly in the arid tracts of Gujarat, Uttar Pradesh, Karnataka, Maharashtra and Andhra Pradesh. It has multiple uses – besides being a staple food, its fodder is an important feed of the milch animals. The study was conducted in 8 FLD villages of three Panchayat Samities namely, Nagaur, Jayal and Mundwa Panchayat Samities of Nagaur district, adopted by the KVK, Nagaur were included and a sample of 100 beneficiary and 50 non-beneficiary farmers were selected purposively. It was found that majority of beneficiary (63%) farmers were having medium knowledge level, whereas 14 and 23 per cent farmers were having low and high knowledge level about recommended bajra production technology, respectively.

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### **KEY WORDS:**

Knowledge, Bajara, Beneficiary, Nonbeneficiary farmers

## BACKGROUND AND OBJECTIVES

Bajra is the major food crop of Rajasthan. This millet can be grown in sandy soils under rainfed conditions and hence, assumes importance in the arid region of Rajasthan. This food grain crop is also grown abundantly in the arid tracts of Gujarat, Uttar Pradesh, Karnataka, Maharashtra and Andhra Pradesh. It has multiple uses — besides being a staple food, its fodder is an important feed of the milch animals.

The front line demonstration is an important method of transfer of latest package of practices in totality to farmers. Through it, farmers learn latest technologies of cereals production under real farming situation at his own field, which may lead to higher adoption. Further, these demonstrations are designed carefully where provisions are made for speedy dissemination of

demonstrated technologies among farming communities through organization of other supportive extension activities, such as field days and farmers convention.

## RESOURCES AND METHODS

The study was conducted in 8 FLD villages of three Panchayat Samities namely, Nagaur, Jayal and Mundwa Panchayat Samities of Nagaur district, adopted by the KVK, Nagaur were included and a sample of 100 beneficiary and 50 non-beneficiary farmers was selected purposively.

## **OBSERVATIONS AND ANALYSIS**

The experimental findings obtained from the present study have been discussed in following heads:

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# Level of knowledge of beneficiary farmers as compared to non-beneficiary farmers about recommended bajra production technology:

As indicated in the methodology the minimum and maximum score, a respondent could secure on the knowledge test were 0 to 100 and 0 to 50. The respondents were grouped in the three categories, on the basis of mean (47.77) and standard deviation (11.59). Respondents who scored below 36.18 were grouped under low knowledge level, the respondents who scored 36.18 to 59.36 were considered under medium knowledge level and those who obtained score above 59.36 knowledge score were categorized under high knowledge level about recommended bajra production technology.

The data in Table 1 reveal that majority of beneficiary farmers (63%) and non-beneficiary farmers (56%) had medium knowledge, whereas 14 and 32 per cent and 23 and 12 per cent beneficiary farmers and non-beneficiary farmers were having low and high knowledge level about recommended bajra production technology, respectively.

## Practice wise knowledge level of beneficiary and nonbeneficiary farmers about recommended bajra production technology:

The knowledge level of respondents as given in Table 2 the knowledge level of beneficiary and non-beneficiary farmers with regard to recommended bajra production technology was measured in terms of mps. In all 9 practices were included to assess the knowledge.

The data in Table 2 indicate that knowledge of beneficiary farmers regarding other aspects like high yielding varieties, sowing of seed and spacing, seed treatment soil, soil and field preparation, storage, weed management, manure and fertilizers management, harvesting, plant protection

Knowledge level of beneficiary and non-beneficiary farmers about recommended bajra production technology

Sr. No.	Knowledge level –	Beneficiary (n=100)		Non-beneficiary (n=50)	
		f	%	F	%
1.	Low (Scores below 36.18)	14	14	16	32
2.	Medium (Scores between 36.18 to 59.36)	63	63	28	56
3.	High (Scores above 59.36)	23	23	6	12
	Total	100	100	50	100

 $\overline{X} = 47.77$ ,  $\sigma = 11.59$ , F=Frequency, %-Percentage

Table 2: Practice wise knowledge level of beneficiary and non-beneficiary farmers about recommended bajra production technology

Sr. No.	Package of practice —	Beneficiary (	Non-beneficiary (n $=50$ )		
		MPS	Rank	MPS	Rank
1.	Soil and field preparation	71.72	IV	67.09	III
2.	High yielding varieties	76.08	I	72.50	I
3.	Sowing of seed and spacing	74.28	II	69.43	II
4.	Seed treatment	73.50	III	65.00	V
5.	Manure and fertilizer management	67.90	VII	63.27	VI
6.	Weed management	70.21	VI	66.43	IV
7.	Plant protection measures	60.28	IX	57.45	VIII
8.	Harvesting	65.25	VIII	53.50	IX
9.	Storage	70.44	V	62.22	VII
	Overall				
0.054	and the second s				

rs=0.87\*\* t = 4.6

Table 3: Comparison of knowledge level between beneficiary and non-beneficiary farmers regarding recommended bajra production technology

Sr. No.	Package of practice —	Beneficiary (n=100)		Non-beneficiary (n=50)		(7) V-1
		Mean	SD	Mean	SD	'Z' Value
1	Soil and field preparation	7.89	2.28	3.68	2.15	12.02**
2	High yielding varieties	9.13	2.19	4.35	2.24	13.65**
3	Sowing of seed and spacing	5.20	1.44	2.43	1.47	12.04**
4	Seed treatment	2.94	0.79	1.30	0.83	12.80**
5	Manure and fertilizer management	7.47	2.10	3.48	2.16	11.85**
6	Weed management	9.83	2.16	4.65	2.06	15.52**
7	Plant protection measures	7.21	2.38	3.16	2.42	10.67**
8	Harvesting	2.61	1.20	1.07	0.97	08.93**
9	Storage	6.34	1.39	2.80	0.97	18.68**

\*\* Indicate significance of value at P=0.01

measures were found to be 76.08, 74.28, 73.50, 71.72, 70.44, 70.21, 67.90, 65.25 and 60.28 MPS and ranks were assigned I,II,III,IV,V,VI,VII,VIII and IX, respectively.

In case of non-beneficiary farmers 72.50, 69.43, 67.09, 66.43, 65.00, 63.27, 62.22, 57.45 and 53.50 MPS of knowledge were reported with regard to high yield varieties, sowing of seed and spacing, soil and field preparation, weed management, seed treatment and soil, manure and fertilizers management, storage, plant protection measures and harvesting practices and ranks were assigned in descending order from I to IX, respectively.

This calls for rejection of Null hypothesis and acceptance of alternative hypothesis leading to conclusion that there is a significant difference in knowledge level of beneficiary and non-beneficiary respondents regarding all nine practices of bajra cultivation. In other words, there is no similarity between the level of knowledge of beneficiary and non-beneficiary farmers regarding bajra production technology.

The higher knowledge level of recommended bajra production technology among the beneficiary in comparison of non-beneficiary respondents, might be due to the reason that the FLDs were conducted on the fields of beneficiary farmers only by the KVK, Nagaur and they have also been provided necessary guidance, literature and training by the KVK scientists and SMS of ARSS, Nagaur. Whereas, the FLDs were not conducted on the field of non-beneficiary farmers and not provided any type of guidance and training by the SMSs. This might have resulted in higher level of knowledge of beneficiary farmers in comparison to non-beneficiary farmers.

It might be concluded that the beneficiary farmers were having highest over all and practicewise knowledge about recommended bajra production technology. Where as nonbeneficiary farmers were having less knowledge about it. This might be due to the fact that beneficiary farmers might have learnt about recommended bajra production technology through field days, trainings, farmer's fairs, exhibition, tours and literature provided by KVK scientists under FLD where as non-beneficiary farmers were not benefited through extension activities. Similarly Singh and Waris (2002) studied farmers knowledge and adoption of improved practices of til production in arid areas of Rajasthan. The findings of the study are in conformity with the findings of Arneja and Khangura (2003) and Singh and Waris (2002).

#### **Conclusion:**

 It was found that majority of beneficiary 63 per cent farmers were having medium knowledge level, whereas
14 and 23 per cent farmers were having low and high knowledge level about recommended bajra production technology, respectively.

- -In case of non-beneficiary farmers majority of the respondents 56 per cent had medium knowledge level whereas 32 per cent and 12 per cent farmers were having low and high knowledge level about recommended bajra production technology, respectively.
- -According to practice wise, it was also found that both type of respondents (beneficiary and non-beneficiary) possessed maximum knowledge regarding high yielding varieties (76.08 and 72.50) of bajra crop, respectively. Similarly the least knowledge was possessed regarding plant protection measures and harvesting (62.25 and 53.50), respectively.

The findings of the study are in conformity with the findings of Arneja and Khangura (2003) and Rathore *et al.* (2003).

#### **Recommendation:**

Since majority of the respondents had medium knowledge level about recommended bajra production technology, thus efforts be made to bring about change in knowledge of respondents from low to medium and medium to high level.

The farmers may be motivated to participate in the extension activities like training, demonstration, exhibition, agricultural quiz programmes and farmers' fair etc, so that they may have opportunity to learn new things.

Front line demonstration programme may begin with wide publicity and may be conducted on all farmers fields instead of some selected farmers.

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