

## TECHNOLOGICAL KNOWLEDGE OF CAULIFLOWER GROWERS IN UDAIPUR DISTRICT OF RAJASTHAN

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### ABSTRACT

The present study was conducted in the girwa tehsil of Udaipur district of Rajasthan. For selection of villages first five villages were selected on the basis of highest production of cauliflower, which also fall in the radius of 15 km from tehsils headquarter and a sample of 75 respondents were selected and these respondents were termed as periphery farmers. In order to make it a comparative study a sample of 75 respondents drawn from five other villages which had highest production of cauliflower and come beyond the radius of 15 kms from the tehsils headquarter. Findings showed that the knowledge was higher in case of periphery farmers in almost all the improved practices of cauliflower cultivation in the study area. It may be further noted that periphery farmers had knowledge ranged from 53.33 to 93.00 per cent in all improved practices. Whereas, the distant farmers possessed knowledge about all practices ranged from 40.00 to 60.00 per cent. It is suggested that knowledge gap could be bridged up by way of intensive training to them about these practices in time bound frame.

### INTRODUCTION

Cauliflower (*Brassica oleracea var. botrytis*) is one of the most important as well as popular winter vegetable crop, which is grown throughout the country. It is also extensively grown in the state of Rajasthan including Udaipur region. In Udaipur district the total area under cauliflower cultivation is 85 ha with a production of 52 metric tonnes. The maximum area (i.e 77 ha) is in Girwa tehsil with accounts about 91 per cent of total area of cultivation in Udaipur district though the district has suitable agro-climatic condition for successful cultivation of cauliflower but this crop does not fetch good price through out the season. This may be due to improper knowledge of farmers about cauliflower cultivation technology in the area. With this point of view the present study was undertaken with the specific objectives to find out the knowledge level and knowledge gap of farmers about improved practices of cauliflower cultivation in the study area.

### RESEARCH METHODOLOGY

The present study was conducted in Girwa

Tehsil of Udaipur district of Rajasthan. The Girwa Tehsil was selected for the study due to the reason that it possessed highest production of cauliflower.

For selection of villages first five villages were selected on the basis of highest production of cauliflower, which also fall in the radius of 15 kms from tehsil headquarter. From each identified village a proportionate sample of cauliflower growers was drawn with the help of random sampling procedure. Thus, the total size of sample consisted of 75 respondents and these respondents were termed as periphery farmers. In order to make it a comparative study a sample of 75 respondents was drawn from five other villages which possessed highest production of cauliflower and come beyond the radius of 15 kms from the tehsil headquarter. Thus, the total size of sample was constituted of 150 respondent's i.e, 75 periphery farmers and 75 distant farmers. Data were collected by using interview technique.

### RESULTS AND DISCUSSION

An attempt was made to find out the knowledge of farmers about improved practices of

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**Table 1. Level of knowledge about improved practices of cauliflower cultivation (n=150)**

Level of knowledge	Periphery farmers		Distant farmers		Total	
	f	%	f	%	f	%
Low (<=19)	15	20.00	35	46.67	50	33.33
Medium (20-27)	25	33.33	35	46.67	60	40.00
High(>=28)	35	46.67	05	06.67	40	26.67

cauliflower, the respondents were categorised into three categories i.e. low, medium and high on the basis of Mean and Standard deviation of the knowledge score.

The data presented in Table 1 reveal that in general 40 per cent cauliflower growers were found to be under medium knowledge category, whereas, 50 respondent were reported to be from the category of low knowledge group and only 26.67 per cent respondents possessed high knowledge about improved cauliflower practices .

While analyzing the case of periphery respondents regarding their extent of knowledge

about improved practices of cauliflower cultivation, it was found that 35 (46.67 %) respondents were in the high knowledge group. On the other side, the frequency of distant respondents under this category knowledge was reported to be quite discouraging i.e. 5 (6.67 %)

A close observation of the data in Table 1 reveal that 25 (33.33 %) periphery and 35 (46.67 %) distant farmers had medium level of knowledge and only 15 (20 %) periphery farmers and 35 (46.67 %) distant farmers possessed low level of knowledge.

Findings are in line with the findings of Sundaraswamy and Bavalatti (1991) found that

**Table 2. Comparison of extent of knowledge between periphery and distant farmers with regards to improved practices of cauliflower cultivation (n=150)**

S. No	Practices	Periphery farmers		Distant farmers		'Z' value
		M.S	S.D	M.S	S.D	
1	H.Y.V	3.001	0.7717	2.466	0.4988	5.671*
2	Nursery preparation	1.800	1.1075	1.200	1.0456	3.411*
3	Type and structure of soil	0.666	0.4717	0.400	0.4819	3.388*
4	Seed treatment	1.066	0.9285	0.800	0.4000	2.78*
5	Time of sowing	4.000	0.8164	3.266	0.8537	5.397*
6	Seed rate	1.200	0.6531	1.800	0.6531	3.750*
7	Spacing	1.866	0.4988	1.533	0.4988	4.086*
8	Fertilizer application	3.133	0.7180	2.200	0.6532	8.330*
9	Weed management	2.840	1.0330	2.266	0.6799	4.042*
10	Irrigation management	1.330	0.9428	0.866	0.4988	3.760*
11	Plant protection measures	2.660	1.8856	1.866	1.1470	3.134*
12	Harvesting	1.800	0.4000	1.330	0.4714	6.580*

\*Significant at 1 percent level

majority of the respondents (57 %) belonged to medium knowledge level category.

### Comparison of Extent of Knowledge Between Periphery and Distant Farmers

**NH<sub>0</sub>:** There is no variation between the knowledge level of two categories of farmers

**RH<sub>1</sub>:** There is variation between the knowledge levels of two categories of farmers

It is evident from Table 2 that the calculated 'Z' value for all the practices of cauliflower cultivation was found to be significant at 1 percent level. Hence, the research hypothesis (RH<sub>1</sub>) is

accepted and null hypothesis rejected. This means there is a significant variation in the knowledge level between the periphery and distant respondents with respect to improved cauliflower cultivation practices. Distant respondents had low knowledge as compared to periphery respondents.

It may be so due to the fact that majority of distant respondents were tribal and illiteracy is higher. Other reasons of low knowledge of distant respondents are, that extension agencies do not contact their far flung area where they are living.

Majority of the distant respondents may not be aware about the importance of cauliflower production.

### Knowledge Gap of Farmers Regarding Improved Practices of Cauliflower Cultivation

To find out the knowledge gap the maximum obtainable score under each practice was noted, then obtained score by the respondent in respective practice was recorded. The knowledge gap was calculated by way of multiplying total obtained score

**Table 3 : Knowledge gap of farmers regarding improved practices of cauliflower cultivation (n=150)**

S. No	Practices	Knowledge Index		Knowledge gap	
		Periphery	Distant	Periphery	Distant
		MPS	MPS	MPS	MPS
1	H.Y.V	76.66	61.66	23.34	38.34
2	Nursery preparation	60.00	40.00	40.00	60.00
3	Type and structure of soil	66.66	40.00	33.34	60.00
4	Seed treatment	53.33	40.00	46.67	60.00
5	Time of sowing	80.00	65.33	20.00	34.68
6	Seed rate	60.00	40.00	40.00	60.00
7	Spacing	62.22	51.11	37.78	48.89
8	Fertilizer application	78.33	55.55	21.67	45.00
9	Weed management	70.00	56.66	30.00	43.34
10	Irrigation management	66.66	43.33	33.34	56.67
11	Plant protection measures	66.66	46.66	33.34	53.34
12	Harvesting	90.00	66.66	10.00	33.34

MPS= Mean Percent Score

of the respondents by hundred and divided by the maximum obtainable score under each practice. The results are presented in Table 3.

It is evident from the data presented in Table 3 that there exists 46.67 per cent knowledge gap among the periphery farmers about seed treatment of cauliflower cultivation. It may be due to the fact that they do not know about the advantage of seed treatment. On the other hand, maximum knowledge gap among the distant respondents was reported in nursery preparation (60 per cent), type and structure of soil (60 per cent), seed treatment (60 per cent), seed rate (60 per cent), irrigation management (56.67 per cent) and plant protection measures (53.34 per cent).

Other improved practices where knowledge gap among the respondents of periphery category was found were H.Y.V (23.34%), nursery preparation (40.0%), type and structure of soil (33.34%), time of sowing (20.0%), seed rate (40.0%), spacing (37.78%), fertilizer application (21.67%), weed management (30.0%), irrigation (33.34%), plant protection (33.34%) and harvesting (10.0%) whereas knowledge gap among the respondents of distant category were H.Y.V, time of sowing, spacing fertilizer application, weed management, and harvesting along with their percentage 38.34, 34.67, 48.87, 45.00, 43.34 and 33.34, respectively.

Thus, it is concluded that though both the categories of respondents have certain knowledge

about the improved practices of cauliflower cultivation, even though there has been substantial knowledge gap in many of the practices of cauliflower growing. The reason behind this may be that technical know-how available with extension agencies is not being transmitted properly and speedily as it is expected.

### CONCLUSION

It may be concluded that the knowledge was higher in case of periphery farmers in almost all the improved practices of cauliflower cultivation in the study area. It may be further noted that periphery farmers had knowledge ranged 53.33 to 93.00 per cent in all improved practices. Whereas, the distant farmers possessed knowledge about all the practices ranged from 40.00 to 60.00 per cent. It is suggested that knowledge gap could be bridged up by way of intensive training to them about these practices in

time bound frame.

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