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Research Article

Extent of adoption of recommended cauliflower production technology by the cauliflower growers

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SUMMARY : Extent of adoption refers to measure how far a particular technology was adopted by an individual correctly without distortion of message. Efficient transfer of innovative technologies and their adoption to field situations is the key to national agriculture development. Hence, the study was undertaken in ten villages of two taluka of Parbhani and Nanded district of Marathwada region of Maharashtra State on 80 cauliflower growers with an object to study the adoption of recommended production technology of cauliflower by the cauliflower growers. The research design adopted was ex-post-facto, since the data were collected by personally interviewing by the cauliflowers growers and analyzed statically. The results were observed that the majority (55.00 per cent) of the respondents were having medium level of adoption of recommended technology followed by high and low level. Out of six major recommended technologies of cauliflower cultivation, the majority of respondents had high level of adoption on preparatory tillage, seed and sowing, intercultural operation, fertilizers use, irrigation technology, plant protection measures.

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KEY WORDS:
Adoption, Cauliflower production technology

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BACKGROUND AND OBJECTIVES

Vegetable growing provides a constant income throughout the year. Cauliflower is highly nutritious vegetable. It is good source of minerals and vitamins. It is also rich source of protein and carbohydrates, it provides 30 K cal of energy. Cauliflower is low in fat, high in dietary fiber, foliate, water and vitamin C, possessing a very high nutritional density. Several programmers to transfer the agriculture technology are in operation throughout the country, but the technology had not yet reached to the grass root level. Knowledge about any practices plays an important role on its adoption (Kadam *et al.*, 1998). Therefore, for adoption of technology, knowledge is the pre-requisite. The present study is, therefore, an attempt to understand the level of adoption and potential characteristics of cauliflower growing farmers. This may help extension personnel in boosting cauliflower production by locating such farmers and by providing necessary facilities to them. It is expected that it will provide a feedback to the concerned horticultural scientists in agricultural universities and policy makers of the development departments.

RESOURCES AND METHODS

The present study was conducted in ten villages of two taluka of Parbhani and Nanded district of Marathwada region of Maharashtra State on 80 cauliflower growers with an object to study the adoption of recommended production technology of cauliflower by the cauliflower growers. The research design adopted was ex-post-facto. The present study is, therefore, an attempt to understand the level of adoption and potential characteristics of cauliflower growing farmers. The data pertaining to the objectives were collected with the help of specially structured interview schedule. In order to facilitate the analysis and interpretation of the, statistical tools like frequency, percentage, correlation coefficient and multiple regressions were used.

OBSERVATIONS AND ANALYSIS

The results obtained from the present investigation have been discussed in the following sub heads:

Adoption level:

As regards that adoption level of respondents about recommended production technology of cauliflower crop, the respondents were categorized with the help of mean S.D. The data in this regard is given in Table 1.

Table 1 shows that majority (55.00 %) of the respondents were having medium level of adoption of recommended technology followed by 36.25 per cent of respondents were having high adoption level of recommended production technology of cauliflower. Where as 8.75 per cent of the respondents were having low adoption levels.

Adoption of recommended production technology of cauliflower by the cauliflower growers:

In order to ascertain the extent of adoption of recommended production technology of cauliflower crop, the respondents were asked to express to what extent they followed the recommendations. The information pertaining to practice wise adoption of cauliflower cultivation is depicted in Table 2.

Adoption about preparatory tillage:

From Table 2 it was revealed that 100 per cent of the respondents followed recommended subtropical and dry climate conditions. Majority of cauliflower growers (88.75 per cent) had adopted medium, well drained soil for cauliflower cultivation as recommended whereas 10.00 per cent of respondents had partially adopted recommended type of soil.

Table 1 : Distribution of the respondents according to level of overall adoption of recommended production technology of cauliflower crop

Sr. No.	Level of adoption	Respondents	
		Frequency	Percentage
1.	Low (Up to 14)	7	8.75
2.	Medium (15 to 23)	44	55.00
3.	High (24 and above)	29	36.25
	Total	80	100.00

Table 2 : Distribution of the respondents accordingly to level of adoption about recommended production technology of cauliflower crop

Sr. No.	Recommended practices	Adoption					
		Full		Partial		No adoption	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Preparatory tillage							
1.	Selection of medium, well drain soil	71	88.75	8	10.00	1	1.25
2.	Climate condition required	80	100	-	-	-	-
3.	Ploughing and harrowing before sowing	68	85.00	8	10.00	4	5.00
4.	Quantity of FYM	30	37.50	42	52.50	8	10.00
Seed and sowing							
l	Main winter season cultivation	60	75.00	20	25.00	-	-
2.	Seed rate (600 to 700 g/ha)	44	55.00	36	45.00	-	-
3.	Seed bed size	13	16.25	30	37.50	37	46.25
4.	Transplanting period	62	77.50	18	22.50	10	12.50
5.	Spacing	33	41.25	45	56.25	2	2.50
Intercultural (operations) cultivation							
1.	2 to 3 hoeing	44	55.00	36	45.00	-	-
Fertilizer dose							
1.	Recommended fertilizer dose	30	37.50	29	36.25	21	26.25
Irrigation technology							
1.	Method of irrigation	70	87.50	-	-	10	12.50
2.	Gap between irrigation 10-12 days	56	70.00	24	30.00	-	-
Plant protection							
1.	Recommended plant protection measures for pest	30	37.50	46	57.50	4	5.00
2.	Recommended plant protection measures for disease	29	36.25	38	47.50	13	16.25
3	Curds covers with leafs	79	98.75	-	-	1	1.25

About 85.00 per cent of respondents adopted 1-2 ploughing and 2-3 harrowing before sowing as per recommendation, 10.00 per cent of the respondents partially adopted it and 5.00 per cent of the respondents did not adopt the recommended production technology. 52.50 per cent of the respondents partially adopted manorial dose whereas 37.50 per cent of the respondents adopted manorial dose as per recommendation while 10.00 per cents respondents had not adopted manure.

Adoption about seed and sowing:

It was observed from Table 2 that majority of the respondents (75.00 per cent) had adopted main winter season for sowing as per recommended while 25.00 per cent of them had not adopted the recommended season for sowing of cauliflower crop. Table 2 showed that majority of respondents (55.00 per cent) adopted seed rate as per recommendation while 45.00 per cent respondents had partially adopted seed rate. Majority of respondents *i.e.* 37.50 had adopted seed bed size for sowing partially recommendation while only 16.50 per cent of the respondents adopted fully as per the recommendation. Majority of respondents (77.50 per cent) adopted fully transplanting period of the cauliflower as per recommendation and 22.50 per cent of the respondents adopted it partially, while 12.50 per cent of the respondents not adopted. It was depicted from Table 2 that 56.50 per cent of the respondents had partially adopted sowing distance while 41.25 per cent of them had adopted it as per recommendation for cauliflower crop. 2.50 per cent of the respondents had not adopted the recommended sowing distance for cauliflower crop.

Adoption about intercultural (operations) cultivation:

The 55.00 per cent respondents adopted intercultural operations as per recommendation while 45.00 per cent respondents adopted it partially.

Adoption about fertilizers dose use:

The most of the respondents (37.50 per cent) had adopted fertilizers as per the recommendation and 36.25 of respondents partially adopted fertilizer dose, while 26.25 per cent respondents had not adopted recommended dose of fertilizer. These findings are supported by Waghmode (2005) and Bedre (2009).

Adoption about irrigation technology:

It is seen from Table 2 that majority (87.50 per cent) had adopted ridge and furrow method of irrigation while 12.50 per cent respondents not adopted recommended method of irrigation.

Adoption about plant protection measures:

Table 2 highlighted that 37.50 per cent of respondents had adopted recommended plant protection measures for controlling pest, 57.50 respondents had partially adopted and 5.00 per cent of them had not adopted recommended plant protection measures. It was manifested from Table 2 that 36.25 per cent of respondents had adopted recommended plant protection measures for controlling diseases, 47.50 respondents had partially adopted and 16.25 per cent of them had not adopted recommended plant protection measures for disease control and 98.75 per cent respondents adopted recommended production technology of covering curd with leafs while only 1.25 per cent respondents not adopted recommendation.

Conclusion:

It goes without saying that a cauliflower grower fetches fabulous income if almost recommended production technology is followed by cauliflower growers. This implies that for enhancing adoption level, they should have also a high level of knowledge and skill to avoid the difficulty in actual use. Hence, it is suggested that an organized programme in cauliflower production, training, demonstrations and frequent field visits should be taken up by the concerned extension agency so that knowledge and adoption level of recommended production technology of cauliflower growers is enhanced. Some of the variables are positively related with the adoption of recommended production technology of cauliflower. Therefore, the respondent who possesses the high knowledge and quality of risk preference may be considered as resource person in enhancing the better management of cauliflower cultivation which ultimately helps the cauliflower growers to increase cauliflower production.

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