

A Study on Extent of Adoption of Recommended Practices of Chrysanthemum Cultivation in Dharwad District of Karnataka

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Abstract : The study conducted on the extent of adoption of recommended practices of chrysanthemum cultivation in Dharwad district of Karnataka state revealed that practices namely, row to row spacing, basal dose application of fertilizer, top dressing and time of planting were adopted by 60.0, 73.3, 61.7, and 95.0 per cent respectively. Whereas, only 24.2, 18.3 and 32.5 per cent adopted variety, number of cuttings per acre and FYM application. The study also indicated that the extent of adoption was significantly associated with the education, annual income, mass media participation and extension contact of the farmers.

Introduction

There is a considerable trade of flowers in our country, spread over ten states covering 20,500 hectares of area with annual cut flower trade of Rs. 100 crores (Vishnuswarup, 1988). Considering the immense potential of cut flowers, the ministry of Commerce, the Agricultural Products and Processed Food Export Development Authority and the State Trading Corporation have been giving constant encouragement and support to the flower cultivation. Innovative practices to improve the quality and yield of chrysanthemum flower are being advocated by various agencies. But there are no research studies on adoption behaviour of Chrysanthemum growers. Hence, a study was conducted to know the extent of adoption of recommended practices of chrysanthemum cultivation; and the association between personal characteristics of the farmers and

extent of adoption of recommended cultivation practices.

Material and Methods

The study was conducted in purposively selected Dharwad district as it is the major chrysanthemum producing district in North Karnataka with 338 hectares of land under chrysanthemum during 1987-88 and ranks second in total area under the crop in the state. In Dharwad district, Gadag taluk was selected for the study as it constitutes 60.00 per cent (200 hectares) of the total area under chrysanthemum in the district.

Eight villages were selected for the study based on the criterion of minimum of 10 hectares of area under chrysanthemum in each village. Fifteen farmers were selected from each of these villages on systematic random sampling basis, thus constituting 120 respondents for the study.

¹ Part of the thesis submitted by the senior author to the UAS, Dharwad.

Results and Discussion

The extent of adoption of recommended practices of chrysanthemum cultivation:

Majority of the respondents had adopted the practices like row to row spacing, basal dose application of fertilizer, top dressing and time of planting (Table 1). But it was disheartening to note that key recommended practices like variety, recommended number of cuttings per acre, farm yard manure application, plant protection measures and pinching were not adopted by majority of the respondents.

The reasons for greater adoption of row to row spacing were convenience and simplicity of the practice and also no cost involved for its adoption. Majority of them had followed time of planting as chrysanthemum is irrigated crop and farmer need not have to depend on rainfall. Respondents might have first adopted the recommended fertilizer dose, irrespective of cost involved in it, since chrysanthemum is irrigated crop and responsive to fertilizer application. Non availability of farm yard manure must be the other reason.

Lack of knowledge, not possible to adopt, financial constraints were the reasons quoted by the respondents for non partial adoption of the practices like plant to plant spacing, recommended dose of cuttings per acre, plant protection measures and pinching.

Association between characteristics of farmers and their extent of adoption of recommended practices of chrysanthemum cultivation :

Age and adoption : The results (Table 2) indicated that there was no association between age of the respondents and their adoption behaviour. The reason for this might be attributed to the fact that chrysanthemum being quick income returning crop and

farmers will be getting the income throughout the year and can be harvested four to five times a year. Therefore, irrespective of their age, the respondents have been influenced to adopt as many practices as possible.

Education and adoption : Table 2 shows the existence of significant relationship between education and adoption of recommended cultivation practices of chrysanthemum. Majority of the respondents with high and medium level of education were high adopters. The possible reasons may be that educated farmers are more prone to change and it is a fact that education develops mental and psychological ability to understand, decide and adopt new ideas and practices. Exposure of literate farmers to printed written media of communication helps them to develop favourable attitudes towards an innovation resulting in adoption of new technology.

Annual income and adoption : Majority of the respondents having high and medium annual income were high adopters (Table 2). The plausible reason for this trend might be due to the fact that farmers always want to get maximum yield, for which they have to use improved seed material, fertilizers and pesticides for the control of pests and diseases, etc. This requires more money. Hence, only the farmers with high income can afford to purchase the costly inputs.

Mass media participation and adoption : More mass media participation had motivated chrysanthemum growers to achieve high adoption. Chi-square test of significance indicated significant relationship between mass media participation of respondents and their adoption behaviour (Table 2). The plausible reason for this relationship might be that the increased mass media participation enhanced the agricultural information input for efficient utilisation of the new technology by the farmers.

Table 1. Extent of adoption of recommended practices of chrysanthemum cultivation

($\eta - 120$)

Recommended practices	Extent of adoption	Respondents	
		No.	Per cent
1. Variety	A	29	24.20
	NA	91	75.80
2. Use of cuttings per acre	A	22	18.37
	NA	98	81.70
3. Cuttings treatment	A	5	4.20
	NA	105	95.80
4. Spacing :			
a) Row to row	A	72	60.00
	NA	48	40.00
b) Plant to plant	A	24	20.00
	NA	96	80.00
5. Application of FYM	FA	39	32.50
	PA	77	64.30
	NA	1	3.30
6. Use of fertilizers :			
a) Basal dose	FA	88	73.30
	PA	31	25.80
	NA	1	00.80
b) Top dress	FA	74	61.70
	PA	31	25.80
	NA	13	10.80
7. Time of planting	A	114	95.00
	NA	06	05.00
8. Attending pinching	A	30	25.00
	NA	90	75.00
9. Plant protection measures			
a) Thrips and aphids	FA	49	40.80
	PA	65	54.20
	NA	06	05.00
b) Leaf eating caterpillar	FA	33	27.50
	PA	51	42.50
	NA	36	30.00
c) Leaf spot disease	FA	28	23.30
	PA	65	54.20
	NA	27	22.50

A : adopted; NA : Not adopted; PA : Partially adopted.

Table 2. Association between selected personal characteristics and adoption behaviour of chrysanthemum growers (n = 120)

	Adoption Level						Chi square value	
	Low			Medium				High
	No.	Per cent	No.	Per cent	No.	Per cent		
AGE								
Young	13	28.9	13	28.9	19	42.2	$\chi^2 = 5.306$, d.f. = 4	
Middle	18	42.9	10	23.8	14	33.3	Not significant at 5 per cent level of probability	
Old	17	51.5	09	27.3	07	21.2		
EDUCATION								
Low	25	51.2	15	31.3	08	16.7	$\chi^2 = 12.251$ d.f. = 4	
Medium	09	34.6	08	30.8	09	34.60	Significant at 5 per cent level of probability	
High	14	30.4	09	19.6	23	50.0		
ANNUAL INCOME								
Low	30	55.6	17	31.5	07	13.0	$\chi^2 = 23.087$ d.f. = 4	
Medium	13	39.4	06	18.2	14	42.4	Significant at 1 per cent level of probability	
High	05	15.2	09	27.3	19	57.0		
MASS MEDIA PARTICIPATION								
Low	21	56.8	11	29.7	05	13.5	$\chi^2 = 10.621$, d.f. = 4	
Medium	14	35.9	09	23.1	16	41.0	Significant at 5 per cent level of probability	
High	13	29.6	12	27.3	19	43.2		
EXTENSION CONTACT								
Low	11	47.8	09	39.1	03	13.4	$\chi^2 = 9.764$ d.f. = 4	
Medium	26	36.6	14	19.7	31	43.7	Significant at 5 per cent level of probability	
High	11	42.3	09	34.6	06	23.1		

Extension contact and adoption:

Table 2 points out the significant relationship between extension contact and adoption of recommended cultivation practices of chrysanthemum.

Generally, farmers do not adopt innovations as soon as they hear about it. There is need for a competent change agency system to bring about desirable changes in their behaviour and motivate them to accept and adopt the new technology.

Owing to higher extension contacts, respondents might have received more information on chrysanthemum cultivation.

References

VISHNUSWARUP, 1988, Blooming Avenues for flowers, *The Hindu, Survey of Indian Agriculture*, National Press, Madras, pp. 135-138.