

Study on Adoption Behaviour of Flower Growers and their Level of Economic Inspiration under NHM in Indore District

Ms.Pooja Manjhi¹, Ms. Minakshi Meshram², Dr. Sandhya Choudhary³, Dr. V.K. Swarnakar⁴

^{1,2}M.Sc. Students 2016, College of Agriculture, Indore

³Associate Professor, College of Agriculture, Indore

⁴Professor & Head of Extension Education, College of Agriculture, Indore

Abstract— *There is no need to emphasis that floriculture is an important agribusiness gaining commercial importance in the vital scenario of Indian agriculture. India being a tropical country has several advantages in floriculture production. Adoption studies are also useful for illustrating the degree to which acceptance of new technologies is limited by insufficient inputs, credit, or marketing infrastructure. If it appears that farmers are unable to take advantage of a new technology because they lack inputs, this information can be presented to policymakers who have responsibility for the agricultural inputs that are available and the way they are distributed. After the study if adoption behaviour shows that access to credit significantly influences the type of technology that farmers use, then this information may be presented to those responsible for designing and funding credit programmes. Similarly, adoption studies may be used to highlight marketing bottlenecks that limit the acceptability of new technologies. Looking is the importance of flower production in Indore district, the personnel of NHM programme provided various extension programmes and facilities for its development. The programme has completed many years, hence, it was felt appropriate to know the adoption behaviour of flowers growers and their level of economic inspiration under NHM. Therefore, a study has been designed, Study showed that out of the total flower growers, the highest proportion of the flower growers 40.00 per cent found to be perceived partial level of economic inspiration followed by perfect level of economic inspiration 32.50 per cent and least level of economic inspiration 27.50 per cent respectively.*

Keywords— *Adoption Behaviour, Economic inspiration, NHM, Indian agriculture, flowers growers.*

I. INTRODUCTION

India has an ancient heritage of floriculture. Commercial floriculture however is of recent origin. Still 98.5% of flowers are grown under open cultivation and hardly 1.5% flowers are grown under greenhouse. The traditional flowers like marigold, jasmine, chrysanthemum, China aster, crossandra, tuberose, rose petals occupy nearly two thirds of the total area and forms the backbone of Indian floriculture, which is mostly in the hands of small and marginal farmers (Sindhu and Saha, 2010). The commercial floriculture is now recognized as an important sector with the potential for generating employment and earning valuable foreign exchange. There has been tremendous growth in the demand and consumption of floriculture products in the last two decades. In India the total area under cultivation of different flowers was 232.74 thousand hectares and production of flowers was estimated to be 1.729 million tonnes loose flowers and 76.73 million tonnes, cut flowers in 2012-2013(NHM Indore).

Now a day's farmers are very much interested to accept flower cultivation In order to increase their economic standard.

Madhya Pradesh with high geographical area, eleven agro climatic zones and varied soil types is better placed for production of various horticultural crops. Horticultural crops cover 2.6% of gross cropped area in the state. The area under horticulture is 6.42 lakh hectare with an annual production of 37.5 lakh tones .In 2003-04 the area under flowers was 6700ha with a production of 4000 tonnes (NHM Indore). Indore is a leading district in flower production in Madhya Pradesh. The major cut flowers grown in Indore are roses, tube rose, marigold, chrysanthemum, gladiolus and loose flowers are glardia and aster etc. grown under open field and green house conditions.

In Mirjapur, Morod, Asrawadkhurd and Machala villages of Indore block flower are cultivated in bulk for commercial use. Most of the farmers grow rose, marigold, chrysanthemum and gladiolus. Considering the above points an effort has been made to study the adoption behaviour of flower growers and their level of economic inspiration.

1.1 Objective-

Study the economic inspiration level of flower growers in relation to their socio economic status.

1.2 Review of Literature-

1.2.1 Economic inspiration level of flower growers:

Patel and Patel (2000) conducted study on inspiration sources for introducing drip irrigation system in floriculture and stated that the dealers/agents of drip irrigation system were indicated as a source for inspiration by majority of the drip owners. The progressive farmers who had already adopted drip irrigation system stood second as a source of inspiration. Few of the drip owners expressed that they were inspired by Department of Horticulture, which give the subsidy for the drip irrigation system.

1.2.2 Level of adoption behaviour of flower growers:

Vinaykumar (2005) in his study on knowledge and adoption of rose growing farmers in Karnataka indicated that, almost half of the rose growers (49.7%) had high adoption level of recommended practices. Whereas, 34.17 per cent and 16.67 per cent of the rose growers had medium and high adoption level, respectively.

Pawar (2007) reported that majority of the respondents 54.28 per cent of the farmers belonged to medium level of adoption about cultivation practices patchouli whereas; 25.71 per cent and least of minimum of 20.00per cent of the respondents belonged to high and low level of knowledge category, on patchouli cultivation respectively. On the other hand, study reported that majority of the respondents 45.71 per cent of the farmers belonged to medium level of adoption about cultivation practices citronella whereas; 31.42 per cent and 22.87 per cent of the respondents belonged to low and high level of knowledge category respectively.

Ravindra kumar *et al.* (2009) conducted a study during 2007-08 in Uttar Pradesh, India to determine the psychological and communicational characteristics and adoption behavior of cut flower growers in relation to post harvest technology of *Gladiolus*. Study revealed that most of the cut flower growers were having medium level of adoption behaviour. The maximum cut flower growers have adoption behavior about grading and packaging practices.

Mamathalakshmi and Nagabhushanam (2011) revealed that 35.83 per cent of respondents belonged to the category of medium adoption behavior whereas, 32.50 per cent of respondents belonged to low adoption behavior category and 31.67 per cent of the respondents belonged to the category of high adoption behavior.

Sandeep Kumar *et al.* (2013) conducted a study among the three different stages of pinching and disbudding of chrysanthemum *viz.* neither pinching nor disbudding, pinching at 30 days after transplanting and disbudding (as and when needed) and foliar spray of 0.2% cytozyme (no application, 10, 20, 30 days after transplanting). All among the factors were found promising in improving the different vegetative growth and flowering characters of chrysanthemum.

II. METHOD & MATERIAL

The study was conducted in Indore district of Madhya Pradesh. Indore district is one of the important flower growing districts and hence, considered under National Horticultural Mission (NHM) programme. Multi stage sampling technique has been adopted for selection of sample for study. There are total 4 development blocks in Indore district. All the 4 development blocks of the district come under the NHM for floriculture production out of which one block (Indore) has been selected randomly. A list of flower growing villages In Indore block was prepared with the help of "Deputy Director of Horticulture". From this list 4 villages were selected randomly. The names of villages are Mirjapur, Asravadhurd, Morod and Machala. A village wise list of flower growers under NHM growing rose, marigold, chrysanthemum and gladiolus was prepared. From total flower growers of 4 selected villages 120 flower growers were selected randomly.

2.1 Economic inspiration:

The main aim of flowers growers is to realize maximum profit with low cost of inputs. To achieve the goal, production should also increase with optimum use of technology. The inspiration sources for introducing improved technology with respect to economic aspects in floriculture self made pre tested structure schedule was developed. This scale consists of 10 statements. The responses of the flower growers were obtained on 5 point continuums i.e. perfect agree, agree, neutral, disagree and perfect disagree. The scoring was done in the order of 5, 4, 3, 2 and 1 respectively. On the basis of mean \pm SD it was categorized into three categories as below:

TABLE 1
RESPONSES OF THE FLOWER GROWERS

S.No.	Category	Score
1.	Least inspiration	Mean –S.D
2.	Partial inspiration	Mean ±S.D.
3.	Perfect inspiration	Mean +S.D.

III. RESULT & DISCUSSION

3.1 Economic inspiration level of flower growers

Before proceeding to know adoption behaviour of flower growers, it is necessary to discuss the level of economic inspiration which forces to adopt the improved floriculture production technology and practices. It is fact that the flower growers need to get maximum profit from floriculture. A close look at the decisions taken by flower growers which inspire them with respect to economic goal in floriculture and guided in consideration for this enterprise may be in different level which are presented in Table 2.

TABLE 2
DISTRIBUTION OF THE FLOWER GROWERS ACCORDING TO THEIR LEVEL OF ECONOMIC INSPIRATION.

Variable	Categories	Frequency	Percentage	S.D.	C.V%
Economic inspiration	Least	33	27.50	2.04	5.51
	Partial	48	40.00		
	Perfect	39	32.50		
	Total	120	100.00		

The standard deviation of different level of economic inspiration of flower growers was found to be 2.04 with coefficient of variation 5.51 per cent.

The result presented in Table showed that out of the total flower growers, the highest proportion of the flower growers 40.00 per cent was found to perceive partial level of economic inspiration followed by perfect level of economic inspiration 32.50 per cent and least level of economic inspiration 27.50 per cent respectively.

This lead to the understanding that the phenomena with regards to floriculture was related more to partial level of economic inspiration followed by perfect and least level of economic inspiration.

3.2 Adoption behaviour of flower growers in respect of rose, chrysanthemum, marigold and gladiolus-

Adoption is a decision to continue full use of an innovation. It may be defined as the integration of an innovation into a farmer's normal farming activity over an extended period of time. Thus, adoption can be termed as a behaviour response. In concern with floriculture it is the overt behaviour of a flower grower expressed in terms of aggregate adoption scores obtained by him with respect to recommended technologies of particular flower cultivation. Adoption level of selected flowers production technology was assessed and presented in following Tables 3.

TABLE 2
DISTRIBUTION EXTENT OF ADOPTION OF FLOWERS PRODUCTION TECHNOLOGY (n=120)

S.No.	Rose cultivation practices	Extent of adoption of Mean Score			
		Gladiolus	Marigold	Chrysanthemum	Rose
1.	Land preparation at proper time	1.65	2.15	1.77	2.09
2.	Propagation at proper time by vegetative methods	1.63	2.08	1.87	2.15
3.	Planting after treatment	1.75	1.93	2.06	2.02
4.	Proper time of planting	1.53	2.13	1.94	2.15
5.	Proper dose and time of fertilizer application	1.25	2.08	1.88	2.13
6.	Use of bio-fertilizer for proper growth of plant	1.13	2.10	1.78	2.04
7.	Proper time of interculture to control weeds	1.38	2.02	1.79	2.02
8.	Proper stage of irrigation	1.75	2.15	2.04	2.13
9.	Proper time and method of pruning and cutting	1.10	2.10	1.98	2.20
10.	Use of hormones for proper growth of plants	1.63	2.18	2.00	2.13
11.	Use of disease control method	1.65	2.14	1.88	2.03
12.	Use of insect control method	1.28	2.05	1.96	2.23
13.	Realization of optimum yield	1.53	2.33	1.92	2.20
14.	Use of proper packaging and packing material for transportation of flowers	1.43	2.08	1.98	2.12
15.	Overall average	1.48	2.11	1.92	2.12

3.3 Economic inspiration level of flower growers

Study showed that out of the total flower growers, the highest proportion of the flower growers 40.00 per cent found to be perceived partial level of economic inspiration followed by perfect level of economic inspiration 32.50 per cent and least level of economic inspiration 27.50 per cent respectively.

3.4 Adoption behaviour of flower growers in respect of rose, chrysanthemum, marigold and gladiolus

Data depicted that the highest number of flower growers adopted technology and package of practices in cultivation of rose (mean score 2.12) followed by marigold cultivation (mean score 2.11), chrysanthemum cultivation (mean score 1.92) and minimum adoption level in package of practices of gladiolus cultivation (mean score 1.48) respectively.

It is also concluded that the higher number of flower growers 45.00 per cent adopted overall technology in floriculture by medium level followed by 29.17 per cent adopted overall technology in floriculture by high level and 25.83 per cent adopted overall technology in floriculture by low level respectively.

IV. CONCLUSION

In this study we had observed

- Higher number of flower growers 45.00 per cent adopted overall technology.
- Rose and marigold are likely grown by the farmers.
- Farmers faced problem in transportation facilities

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