ANALYSIS OF SOCIO-ECONOMIC PROFILE OF MARIGOLD GROWER IN ADOPTION OF IMPROVED MARIGOLD PRODUCTION TECHNOLOGY

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Abstract : The present investigation entitled "An analysis of Socio-economic Profile of Marigold Grower in Adoption of improved Marigold Production Technology in Chhattisgarh" was carried out during 2010 in two selected blocks of Bilaspur district. 150 randomly selected farmers who were practicing marigold cultivation were interviewed to collect the primary data on the basis of objective of the study. The data were tabulated and analyzed statistically to draw appropriate conclusions. The findings of this study revealed that majority of the respondents were found in middle age group (29 to 45 year) having high school level of education belonged to other backward caste, medium size of family (6 to 10 members) and had membership in more than one organization. Majority of the respondents were having marigold farming + other business as their main occupation, maximum number of the respondents belonged to medium size of land holdings category (2.1 to 4 ha.) with annual income category of Rs. 20,001 to Rs. 40,000 and maximum number of the respondents found credit for short term period from the co-operative society not easily available and other same agencies.

Keyword : Adoption, Marigold grower, Marigold production technology, Socio-economic profile

INTRODUCTION

The commercial cultivation of flowers known as floriculture has became big business. Flowers of all kinds are in great demand for decoration and as sources of essential oil. Marigolds are one of the most important decorative plants. In several states they are grown commercially in fields where they claimed by some to be more profitable than any other crops. India, share in the Rs. 300 crore world markets is 25 per cent while China top with 50 per cent. The other producer is Peru. Devedrobium, cymbidium, vanda species. The increasing demands for marigolds oleoresin pave the way for expanding the cultivation of this flower in the country. Currently, it is used in three applications such as poultry feed as additives, food colouring and leutracenticals. The potential for in are signed use in letter segmental is high as studies in recent years have commended use of lutein it food as it would help. Protect against cataracts and muscles degeneration two common age related eye, disorders. The leaves and flowers of marigold have medicinal value too. Leaf petals are used externally against boils and carbuncles. Flowers extract is considered as blood purifier and good remedy for eye diseases and ulcers. Good quality of perfumes can also be made from its essentials oils. Its petals are used for utility food colours. Since marigold is enriched with lutein, these are a big market for it in USA. However, major market of marigold oleoresin is Mexico where it is used in poultry feed additive to change the skin colours of the chicken and the yolk more in oranges. In facts, Mexico, where from marigold came to India and China continues to be the major market with 35 to 55 per cent followed by Europe and USA. The gestation period of the crop is around 3 month, Farmers pick-up the matured flowers and brings it to companies' collection centers at farm gets. Super hybrid seeds imported from the PAN America Seed Company in Chicago, US are supplied to the farmers under contract. The hybrid seeds give higher yields with high recovery, make of colour. Farmers are paid money every week for their produces and in fact even during off-season they get money. All the farmers are small and average yield per acre is 4-5 tones. They are paid Rs. 2 to Rs. 2.20/ kg. Since the duration of the crops is around 90 days the farmers can cultivated a supplementary crops. On the other as company is directly buying from the farmers no middleman is involved, being under contract farming there is no risk for farmers on price fluctuation (Kumar 2005).

The present study was undertaken with specific objective to assess the Socio-economic profile of the marigold growers.

MATERIAL AND METHOD

The present study was carried out in Bilaspur district of Chhattisgarh state. Bilaspur district has 10 blocks, out of which, only 2 blocks were purposively selected namely, masturi and Pendra because these two blocks are having fairly good marigold production. A list of marigold farmers of the selected blocks were obtained from the office of the horticultural department of Bilaspur district and from each selected block, 75 farmers those were practicing marigold cultivation were selected randomly. In this way total 150 marigold growers were selected as respondents. Respondents were interviewed through personal interview. Prior to interview, respondents were taken in to confidence by revealing the actual purpose of the study and full care was taken in to consideration to develop good rapport with them. For the data collection well designed and pre-tested interview scheduled were used. Collected data were analyzed by the help of various statistical tools i.e.

frequency, percentage, mean and standard deviation, etc.

RESULT AND DISCUSSION

Socio-economic profile of the respondents

Age

It is observed from the Table 1 that the majority of the respondents (69.33%) belonged to middle age group (29 to 45 year), 18.67 per cent respondents were under young age group (up to 28 year) and 12.00 per cent respondents were of old age group (above 45 years).

Table 1: Distribution of respondents according to their age (n =150)

S. No.	Age	Frequency	Per cent
1	Young (up to 28 years)	28	18.67
2	Middle (29 to 45 years)	104	69.33
3	Old (above 45 years)	18	12.00
	Total	**150**	**100.00**

$\bar{X}$ = 36.44 S.D. = 8.24

Thus, it may be concluded that the maximum marigold growers were belonging to middle age group (29 to 45 year). Thus the data clearly indicated that the respondents age group (29-45 years) has higher adoption whereas respondents from old age group (45 and above) has least adoptability to marigold production. This finding is supported by Patel (1993), Dongerdive (2002), Vathsala (2005), Sharma (2006), Siddiqui *et al.* (2006), Mewara and Pandya (2007) and Kumar and Munjunath (2008).

Education

Education builds the ability of an individual to improve knowledge understands and utilizes the knowledge in a better ways.

The data in Table 2 described that the 31.34 per cent of the respondents were educated up to high school followed by 18.67 per cent respondents were found under the category of up to middle school. Whereas, 17.33 per cent respondents each were educated up to higher secondary school and 16.00 per cent respondents were college and above level about 09.33 per cent of them were illiterate and only 07.33 per cent respondents has been educated up to primary school.

Table 2: Distribution of respondents according to their education (n =150)

S. No.	Education	Frequency	Per cent
1	Illiterate	14	09.33
2	Primary school	11	07.33
3	Middle school	28	18.67
4	High school	47	31.34
5	Higher Secondary school	26	17.33
6	College and above	24	16.00
	Total	**150**	**100.00**

Finally results clearly indicated that the majority of respondents were having education up to high school. It may be because of the fact that in most of the villages there are few colleges and above level education. Hence, the farmers with higher education would have easily adopted the recommended marigold production technology. This finding is supported by Vathsala (2005) and Walankhade *et al.* (2009).

Caste

Regarding the distribution of respondents according to their caste, it is observed from Table 3 that majority of respondents (44.67%) belonged to other backward class, followed by 42.67 per cent belonged to schedule tribes, 08.66 per cent respondents were from schedule caste and only 04.00 per cent respondents belonged to general caste.

Table 3: Distribution of respondents according to their caste (n =150)

S. No.	Caste	Frequency	Per cent
1	Schedule caste	13	08.66
2	Schedule tribes	64	42.67
3	Other backward class	67	44..67
4	General	06	04.00
	Total	**150**	**100.00**

It could be concluded that majority of the respondents belonged to other backward class. Thus the data clearly indicated that the other backward caste respondents having high adaptability towards marigold production technology over other categories because they were more educated and participate in more than one organization. This finding is supported by Ahirwar (2005).

Size of family

Regarding the distribution of respondents according to their size of family, it was observed from Table 4 that majority (56.67%) of the respondents had small size of family (up to 5 members) followed by 33.33 per cent with medium size of family (6 to 10 members). Rest of the respondents (10.00%) belonged to large size of family (above 10 members).

Table 4: Distribution of respondents according to their size of family (n =150)

S. No.	Size of family	Frequency	Per cent
1	Small (up to 5 members)	85	56.67
2	Medium (6 to 10 members)	50	33.33
3	Big (above 10 members)	15	10.00
	Total	**150**	**100.00**

This indicated that the maximum number of the respondents belonged to small size of family. Thus the data clearly indicated that the marigold growers with small size of family (up to 5 members) have high adaptability towards marigold production technology over other categories. This finding is supported by Kale (1994).

Social participation

Table 5: Distribution of respondents according to their social participation (n =150)

S. No.	Social participation	Frequency	Per cent
1	No membership in any organization	54	36.00
2	Membership in one organization	14	09.33
3	Membership in more than one organization	75	50.00
4	Executive/office bearer in organization	07	04.67
	Total	**150**	**100.00**

Social participation gives us an idea about the respondent's participation in social activities. The distribution of the respondents according to their social participation is presented in Table 5. It has been found that half of the respondents (50.00%) had membership in more than one organization followed by 36.00 per cent respondents who had no membership in any organization, 09.33 per cent respondents had membership in one organization and only 04.67 per cent respondents were found to be in executive/office bearer in organization category.

The results clearly indicated that the half of the respondents belonged to membership in more than one organization. This finding is supported by Rabari (2006) and Mewara and Pandya (2007).

Occupation

Regarding the distribution of respondents according to their occupation, it is observed from Table 6 that majority of the respondents (57.33%) were involved in marigold farming + other business, followed by marigold farming (24.00%), marigold farming + service (07.33%), marigold farming + animal husbandry (06.67%) and marigold farming + agriculture (04.67%) category, respectively as their main occupation.

Table 6: Distribution of respondents according to their occupation (n =150)

S. No.	Occupation	Frequency	Per cent
1	Marigold farming	36	24.00
2	Marigold farming + Service	11	07.33
3	Marigold farming + Animal husbandry	10	06.67
4	Marigold farming + Agriculture	07	04.67
5	Marigold farming + Other business	86	57.33
	Total	**150**	**100.00**

It could be concluded that majority of the respondents were involved in marigold farming + other business as their main occupation. A positive and significant relationship was observed between occupation and extent of adoption regarding recommended marigold production technology by the marigold growers. This may be explained as follows the growers with higher social participation and more land would have adopted and practices to a greater extent.

Size of land holding

The findings indicated in Table 7 that the maximum number of the respondents (44.67%) had medium size of land holdings category (2.1 to 4 ha), followed by 34.00 per cent who belonged under small size of land holding (1.1 to 2 ha), whereas 14.00 per cent of the respondents were having large size of land holding (above 4 ha) and only 07.33 per cent respondents were marginal (up to 1 ha) farmers.

Table 7: Distribution of respondents according to their size of land holding (n =150)

S. No.	Size of land holding	Frequency	Per cent
1	Marginal (up to 1 ha)	11	07.33
2	Small (1.1 to 2 ha)	51	34.00
3	Medium (2.1 to 4 ha)	67	44.67
4	Large (above 4 ha)	21	14.00
	Total	**150**	**100.00**

It could be concluded from the Table that maximum number of respondents belonged to medium size of land holding category (2.1 to 4 ha). Thus the data clearly indicated that the maximum number of the respondents have medium size of land holdings category (2.1 to 4 ha) those were involved in marigold production. This finding is supported by Patidar (2002) and Walankhade *et al.* (2009).

Annual income

Annual income of family helps to project the overall economic position and it is an indicator of the economic stability of the family. The distribution of the respondents according to their annual income is presented in Table 8.

Table 8: Distribution of respondents according to their annual income (n =150)

S. No.	Annual income (Rs.)	Frequency	Per cent
1	Up to Rs. 20,000	34	22.67
2	Rs. 20,001 to Rs. 40,000	53	35.33
3	Rs. 40,001 to Rs. 60,000	25	16.67
4	Above Rs. 60,000	38	25.33
	Total	**150**	**100.00**

It was found that 35.33 per cent respondents were having their annual income between Rs. 20,001 to 40,000 followed by 25.33 per cent of respondents were having their annual income above Rs. 60,001 whereas 22.67 per cent of respondents were having their annual income up to Rs. 20,000 and only 16.67 per cent of respondents having their annual income Rs. 40, 0001 to Rs.60, 000.

The results clearly indicated that the maximum number of the respondents belonged to Rs. 20,001 to Rs. 40,000 annual income group. A positive and significant relationship was observed between annual income and extent of adoption regarding recommended marigold production technology by the marigold growers. The respondents having annual income ranging from (Rs. 20,001 to Rs. 40,000) would have spent more money on farm development through the adoption recommended marigold cultivation practices.

Credit acquisition

Table 9: Distribution of respondents according to their credit acquisition (n =150)

S. No.	Particulars	Frequency	Per cent
1	**Credit acquisition**		
	Not found	89	59.33
	found	61	40.67
2	**Duration of credit (n = 61)**		
	Short term credit (6-18 month)	40	65.57
	Mid-term credit (15 month-5 years)	15	24.59
	Long term credit (5-20 years)	6	09.83

3	**Availability of credit (n = 61)**		
	Easily available	21	34.43
	Difficult to obtain	40	65.57
4	**Agencies of credit (n = 61)**		
	Cooperative society	31	50.82
	Nationalized bank	15	24.59
	Money lenders	04	06.56
	Friends / Neighbours / Relative / *etc.*	11	18.03

The data presented in Table 9 revealed that majority of the respondents 59.33 per cent had not acquired the credit, whereas, only 40.67 per cent respondents had acquired the credit. Out of the credit acquiring respondents (total 61) the majority of respondents 65.57 per cent of the respondents had taken the short term credit (6-18 month) followed by mid term credit (15 month-5 years) (24.59%) and long term credit (5-20 years) (09.83%). So majority of the respondents had acquired short term credit (6-18 month) while, minimum percentage of respondents had acquired long term credit (5-20 years). Short term credit (6-18 month) might have been taken for purchasing seeds, fertilizers, while mid-term credit (5-20 years) have been taken for irrigation facilities or buying implements.

The 50.82 per cent respondents said that they got credit from cooperative agencies followed by 24.59 per cent of respondents who had taken credit from nationalized bank, 18.03 per cent of respondents had taken credit from Friends/Neighbours/Relative *etc.* while only 06.56 per cent of the respondents had taken credit from money lenders. This revealed that the respondents were aware about the agencies of credit and facilities provided by co-operative societies.

Availability of credit 34.43 per cent respondents found that credit is available to them easily, whereas 65.57 per cent respondents found the credit is not easily obtained from the various agencies because paper work is more and obtaining procedure of credit critical.

It could be concluded that 40.67 per cent of the respondents had taken credit from cooperative society was the major agency of credit providing.

CONCLUSION

From the above findings it can concluded that the majority of the respondents (69.33%) were found in middle age group (29 to 45 year) with educated up to high school and comes under other backward caste. 56.67 per cent of the respondents had small size of family and 50.00 per cent of the respondents were found to be members in more than one organization. The maximum number of the respondents (44.67%) had medium size of land holdings and involved in marigold farming with others business and belonged to Rs. 20,001 to Rs. 40,000 annual income group. 40.67 per cent respondents had acquired the credit and co-operative society is the major credit source for the marigold growers.

REFERENCES

Ahirwar, S.K. (2005). A Study on knowledge and Adoption of cultivation of medicinal and aromatic plant in selected categories of farmers in Sohagpur block of Shahdol District. M.Sc. (Ag.) Thesis, JNKVV, Jabalpur (M.P.).

Dongardive, V.T. (2002). A study on adoption of recommended technology of chilli crop by chilli growers in Anand district of Gujarat state. M.Sc. (Ag.) Thesis, GAU, Anand (Gujarat).

Kale, S.K. (1994). A study of adoption of improved management practices of sweet orange growers in Beed Dist. M.Sc. (Ag.) Thesis, M.A.U., Parbhani.

Kumar, S. and Manjunath, L. (2008). Marketing behaviour, information source consultancy pattern and problems of vegetable growers in Bijapur District of Karnataka. *Karnataka J. of Agric. Sci.* **21**(4)**:** 643.

Mewara, R.C. and Pandya, R.D. (2007). Knowledge and adoption level of tomato growers regarding value added techniques in Navsari. *Rural India* Sept.: 164-167.

Patel, M.R. (1993). A study on extent of adoption of recommended plant protection measures by chilli growers in Kheda district of Gujarat state. M.Sc. (Ag.) Thesis, GAU, Anand (Gujarat).

Patidar, R. (2002). A study on knowledge and adoption of the mentha growers regarding cultivation of mentha crop in Bhopal Distict, Madhya Pradesh. M.Sc. (Ag.) Thesis, JNKVV, Jabalpur (M.P.).

Rabari, S.N. (2006). A study on adoption of tomato recommended technology by tomato growers in Anand district of Gujarat state. M.Sc. (Ag.) Thesis, GAU, Anand (Gujarat).

Sharma, B.K. (2006). A study on identification and preferential adoption of medicinal and aromatic plant cultivation in Teonther Janpad of Rewa Districts, M.P. M.Sc. (Ag.) Thesis, JNKVV, Jabalpur (M.P.).

Siddiqui, N.B., Muhammad, S. and Malik, H.N. (2006). Effect of socio-economic aspect on the awareness and adoption of recommended horticultural practices by apple growers in Balochistan, Pakistan. *Pak. J. Agri. Sci.* **43**(1&2).

Vathsala, B.C. (2005). Knowledge and adoption of integrated pest management practices on cabbage by farmers in eastern dry zone of Karnataka. M.Sc.

(Ag.) Thesis, University of Agriculture Science Bangalore (Karnataka).

Walankhade, P.P., Walandkar, T.M., Kale, N.M. and Mankar, D.M. (2009). Constraints in floricultural Enterpreneurship as perceived by floriculturists. *PKV Res. J.* **33**(1): 40-42.