



ISSN Print: 2664-844X
ISSN Online: 2664-8458
NAAS Rating (2026): 4.97
IJAFA 2026; 8(9): 107-111
www.agriculturaljournals.com
Received: 21-05-2026
Accepted: 27-06-2026

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Profile of floriculturists and their marketing behaviour in Nagpur district of Maharashtra

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DOI: <https://www.doi.org/10.33545/2664844X.2026.v8.i9b.1864>

Abstract

The present study was undertaken to assess the profile characteristics and marketing behaviour of floriculturists in Kamptee, Hingna and Nagpur (Rural) tahsils of Nagpur district in the Vidarbha region of Maharashtra. A total of 110 floriculturists were selected through proportionate random sampling. An exploratory research design was followed, and data were collected through face-to-face interviews using a structured interview schedule. The findings revealed that 50.00 per cent of the floriculturists belonged to the middle-age group (36-50 years), while 31.82 per cent had secondary-level education. A larger proportion (41.82%) belonged to the semi-medium landholding category (2.01-4.00 ha), whereas 75.46 per cent had a medium area under floriculture (0.54-1.21 ha). Regarding experience in floriculture farming, 64.55 per cent belonged to the medium category (11.28-26.19 years). The majority (77.27%) had a medium family size of 4-6 members. With respect to training, 49.09 per cent had not received any training. The highest proportion of respondents (40.91%) belonged to the annual income category of Rs. 2,00,001 to Rs. 4,00,000, while 37.27 per cent earned Rs. 2,00,001 to Rs. 3,00,000 from flower cultivation. A majority (62.73%) had medium social participation. Wells were the most frequently reported source of irrigation. Further, 61.82 per cent had a medium level of access to sources of information, while 60.91 per cent each had medium levels of economic motivation and risk orientation. Regarding marketing behaviour, 59.09 per cent of the floriculturists belonged to the medium category, followed by 21.81 per cent in the high category and 19.10 per cent in the low category. The mean marketing behaviour index was 41.84. The findings indicate scope for strengthening training, market information, market linkages and market-oriented skills among floriculturists in Nagpur district.

Keywords: Floriculturists, profile characteristics, marketing behaviour, floriculture, Nagpur, Maharashtra

Introduction

Floriculture is an important component of horticulture and includes the cultivation, production and marketing of flowers and ornamental plants. The sector encompasses a wide range of products, including cut flowers, loose flowers, potted plants, foliage, seeds, bulbs, tubers, rooted cuttings and dried flowers. In India, flowers such as marigold, chrysanthemum, aster, gaillardia and tuberose are widely cultivated under open-field conditions.

Floriculture is concentrated in several states of India, with Tamil Nadu, Madhya Pradesh, Karnataka and Andhra Pradesh accounting for a major share of production, followed by Gujarat, West Bengal, Maharashtra, Chhattisgarh, Odisha, Telangana, Uttar Pradesh and Assam. During 2024-25, floriculture occupied approximately 397.89 thousand hectares and produced an estimated 3,226.20 thousand tonnes of loose flowers and 1,039.29 thousand tonnes of cut flowers. Indian floricultural products are also exported to several countries, with the United States, the Netherlands, the United Arab Emirates, the United Kingdom and Canada being among the major destinations. (APEDA, 2026)

Maharashtra is one of the important floriculture-producing states of India. Floriculture is undertaken under both protected and open-field conditions in several districts of the state. According to the Economic Survey of Maharashtra 2025-26, the area under flowers, including cut and loose flowers, increased from 12.16 thousand hectares in 2023-24 to 13.34 thousand hectares in 2024-25, representing an increase of 9.7 per cent. During the same

period, flower production decreased marginally from 70.98 thousand metric tonnes to 70.66 thousand metric tonnes. Nagpur district occupies an important position in the floriculture sector of the Vidarbha region and serves as an important flower production and marketing centre. Flowers produced in Nagpur are marketed not only within the district but also in neighbouring districts such as Bhandara, Gondia, Chandrapur and Wardha, as well as in other markets (Tekale *et al.* 2021) ^[10] Major flowers cultivated in the region include marigold, rose, tuberose, chrysanthemum, gladiolus, aster, jasmine, gerbera and carnation. (Pinjarkar, 2020) ^[9] Marketing plays an important role in determining the economic returns obtained from floriculture. Flowers are highly perishable commodities and therefore require timely harvesting, grading, packaging, transportation and marketing. Market information, access to buyers, price information, market linkages and farmers' ability to select appropriate marketing channels can influence the effectiveness of marketing activities. Despite the importance of floriculture as an income-generating and livelihood-supporting enterprise, floriculturists may face difficulties related to market access, price fluctuations, transportation, post-harvest management and availability of market information. Understanding the personal, socio-economic, situational, communicational and psychological characteristics of floriculturists is therefore important for designing appropriate extension and market-oriented interventions. Hence, the present study was undertaken to assess the profile characteristics of floriculturists and their marketing behaviour in Nagpur district of Maharashtra.

Objectives

1. To study the socio-economic, situational, communicational and psychological characteristics of floriculturists.
2. To study the marketing behaviour of floriculturists.

2. Methodology

2.1 Locale of the study

The study was conducted in Nagpur district of the Vidarbha region of Maharashtra State. Nagpur district consists of fourteen tahsils. Among these, Kamptee, Hingna and Nagpur (Rural) tahsils were selected purposively based on

the maximum area under floriculture production.

2.2 Sampling procedure

A total of 110 floriculturists were selected from the selected tahsils through proportionate random sampling. The respondents were selected from the available population of floriculturists in the selected study area.

2.3 Research design

An exploratory research design was followed for the present study. The design was considered appropriate for assessing the selected profile characteristics and marketing behaviour of floriculturists.

2.4 Data collection

Primary data were collected through face-to-face interviews using a structured interview schedule. The schedule included questions related to the socio-economic, situational, communicational and psychological characteristics of the respondents, as well as their marketing behaviour.

2.5 Variables studied

The profile characteristics studied were age, education, land holding, area under floriculture, experience in floriculture farming, family size, training received, annual income, income from flower cultivation, social participation, sources of irrigation, sources of information, economic motivation and risk orientation. Marketing behaviour was considered as the dependent variable.

2.6 Data analysis

The collected data were classified and tabulated according to the objectives of the study. Frequency and percentage were used to describe the distribution of respondents. Mean values were used wherever applicable. Respondents were classified into low, medium and high categories according to the classification procedure used in the study.

3. Results and Discussion

3.1 Profile characteristics of floriculturists

The distribution of respondents according to their socio-economic, situational, communicational and psychological characteristics is presented in Table 1.

Table 1: Distribution of respondents according to socio-economic, situational, communicational and psychological characteristics of floriculturists

Profile characteristics	Categories	Frequency	Percentage
Age	Young (up to 35 years)	35	31.82
	Middle (36-50 years)	55	50.00
	Old (above 50 years)	20	18.18
Education	Illiterate	00	00.00
	Primary school	15	13.64
	Middle school	20	18.18
	Secondary school	35	31.82
	Higher secondary school	26	23.64
	College/ Graduation	14	12.72
Land holding	Marginal (up to 1.00 ha)	21	19.09
	Small (1.01-2.00 ha)	20	18.18
	Semi-medium (2.01-4.00 ha)	46	41.82
	Medium (4.01-10.00 ha)	18	16.36
Area under floriculture	Large (above 10.00 ha)	05	04.55
	Low (up to 0.53 ha)	17	15.45
	Medium (0.54-1.21 ha)	83	75.46
	High (above 1.21 ha)	10	9.09

Experience in floriculture farming	Low (up to 11.27 years)	19	17.27
	Medium (11.28-26.19 years)	71	64.55
	High (above 26.19 years)	20	18.18
Family size	Small (up to 3 members)	12	10.91
	Medium (4-6 members)	85	77.27
	Large (above 6 members)	13	11.82
Training received	No training received	54	49.09
	One-day training	37	33.64
	Two-day training	16	14.55
	Three-day training and above	03	02.72
Annual income	Up to Rs. 2,00,000	23	20.91
	Rs. 2,00,001-4,00,000	45	40.91
	Rs. 4,00,001-6,00,000	17	15.45
	Rs. 6,00,001-8,00,000	15	13.64
	Above Rs. 8,00,000	10	09.09
Income from flower cultivation	Up to Rs. 1,00,000	14	12.73
	Rs. 1,00,001-2,00,000	35	31.82
	Rs. 2,00,001-3,00,000	41	37.27
	Rs. 3,00,001-4,00,000	15	13.64
	Above Rs. 4,00,000	05	04.54
Social participation	Low (up to 2.19)	26	23.64
	Medium (2.20-7.15)	69	62.73
	High (above 7.15)	15	13.63
Sources of irrigation*	Tube wells	29	26.36
	Wells	49	44.54
	Canal	07	06.36
	River	38	34.54
Sources of information	Low (up to 10.85)	17	15.45
	Medium (10.86-16.73)	68	61.82
	High (above 16.73)	25	22.73
Economic motivation	Low (up to 19.42)	16	14.55
	Medium (19.43-25.45)	67	60.91
	High (above 25.45)	27	24.54
Risk orientation	Low (up to 16.43)	25	22.73
	Medium (16.44-20.65)	67	60.91
	High (above 20.65)	18	16.36

Note: *Sources of irrigation was recorded as a multiple-response variable; therefore, frequencies and percentages are not expected to total 110 respondents or 100 per cent

Age

Half of the respondents (50.00%) belonged to the middle-age group of 36-50 years, followed by 31.82 per cent in the young-age group and 18.18 per cent in the old-age group. The predominance of middle-aged respondents indicates that floriculture was largely undertaken by farmers belonging to the economically active age group. Similar findings were reported by Nagar (2018) and Tekale *et al.* (2021) [7, 10].

Education

The highest proportion of respondents (31.82%) had completed secondary school education, followed by 23.64 per cent with higher secondary education and 18.18 per cent with middle-school education. None of the respondents was illiterate. The educational background of the respondents may facilitate their access to agricultural information and their ability to understand and use information related to production and marketing. Similar findings were reported by Warkhade (2017) and Tekale *et al.* (2021) [10, 11].

Land holding

A larger proportion of respondents (41.82%) belonged to the semi-medium landholding category of 2.01-4.00 ha. This was followed by 19.09 per cent in the marginal category and 18.18 per cent in the small category. The predominance of semi-medium landholders suggests that floriculture was undertaken substantially by farmers possessing moderate

land resources. Similar findings were reported by Warkhade (2017) and Tekale *et al.* (2021) [10, 11].

Area under floriculture

A substantial majority of respondents (75.46%) had a medium area under floriculture, ranging from 0.54 to 1.21 ha. Only 15.45 per cent had a low area and 09.09 per cent had a high area under floriculture. The concentration of respondents in the medium category indicates that most floriculturists maintained floriculture on a moderate area of their holdings. Similar findings were reported by Warkhade (2017) and Tekale *et al.* (2021) [10, 11].

Experience in floriculture farming

A majority of respondents (64.55%) had medium experience in floriculture farming, ranging from 11.28 to 26.19 years. This was followed by 18.18 per cent with high experience and 17.27 per cent with low experience. The substantial experience of the respondents indicates that most floriculturists had been associated with flower cultivation for a considerable period and had accumulated practical experience in crop production and management. Similar findings were reported by Warkhade (2017), Nagar (2018) and Tekale *et al.* (2021) [7, 10, 11].

Family size

The majority of respondents (77.27%) belonged to the medium family-size category of 4-6 members. This was

followed by 11.82 per cent with large families and 10.91 per cent with small families. A medium-sized family may provide adequate family labour for different activities associated with floriculture, although the actual contribution of family labour was not assessed in the present study. Similar findings were reported by Warkhade (2017) and Tekale *et al.* (2021) ^[10, 11].

Training received

Nearly half of the respondents (49.09%) had not received any training related to floriculture. Among those reporting training, 33.64 per cent had received one-day training, 14.55 per cent had received two-day training and 02.72 per cent had received training of three days or more. The relatively high proportion of untrained respondents indicates scope for strengthening training and capacity-building programmes for floriculturists. Training may focus on improved production practices, post-harvest handling, grading, packaging, transportation, market information and marketing practices. A similar finding was reported by Warkhade (2017) ^[11].

Annual income

The highest proportion of respondents (40.91%) belonged to the annual-income category of Rs. 2,00,001 to Rs. 4,00,000. This was followed by 20.91 per cent earning up to Rs. 2,00,000 and 15.45 per cent earning Rs. 4,00,001 to Rs. 6,00,000. The annual income of the respondents may be influenced by the size of landholding, area under different crops, production levels and income obtained from agricultural and allied activities. Similar findings were reported by Ayaz *et al.* (2018) ^[3].

Income from flower cultivation

The highest proportion of respondents (37.27%) earned Rs. 2,00,001 to Rs. 3,00,000 from flower cultivation, followed by 31.82 per cent earning Rs. 1,00,001 to Rs. 2,00,000. Only 04.54 per cent earned more than Rs. 4,00,000 from flower cultivation. The income obtained from flowers may vary according to production, crop type, market prices, quality and quantity of flowers marketed. The findings indicate that flower cultivation constituted an important source of income for the respondents.

Social participation

A majority of the respondents (62.73%) belonged to the medium category of social participation, followed by 23.64 per cent in the low category and 13.63 per cent in the high category. Medium social participation indicates moderate involvement of the respondents in social organisations and activities. Such participation may provide opportunities for interaction and exchange of agricultural information. Similar findings were reported by Warkhade (2017) and Tekale *et al.* (2021) ^[10, 11].

Sources of irrigation

Wells were the most frequently reported source of irrigation, with 49 respondents (44.54%), followed by river water (34.54%), tube wells (26.36%) and canals (06.36%). Since more than one irrigation source could be reported, the frequencies and percentages exceed the total sample size. The findings indicate that respondents relied on a combination of available water sources for flower

cultivation. The availability of dependable irrigation is particularly important for maintaining flower production.

Sources of information

A majority of the respondents (61.82%) belonged to the medium category of sources of information, followed by 22.73 per cent in the high category and 15.45 per cent in the low category. This indicates that most respondents had a moderate level of access to agricultural information. Strengthening the availability and timely delivery of information related to production, prices, market demand and marketing channels may further support floriculturists. Similar findings were reported by Yogita.

Economic motivation

The majority of respondents (60.91%) belonged to the medium category of economic motivation, followed by 24.54 per cent in the high category and 14.55 per cent in the low category. This indicates that most respondents had a moderate level of motivation to improve their economic condition through farming activities. Similar findings were reported by Warkhade (2017) and Tekale *et al.* (2021) ^[10, 11].

Risk orientation

A majority of respondents (60.91%) belonged to the medium category of risk orientation. This was followed by 22.73 per cent in the low category and 16.36 per cent in the high category. The predominance of the medium category indicates that most respondents showed a moderate tendency to accept risk in farm-related decision-making. Similar findings were reported by Warkhade (2017) ^[11].

3.2 Marketing behaviour of floriculturists

The distribution of respondents according to their overall marketing behaviour is presented in Table 2.

Table 2: Distribution of respondents according to their overall marketing behavior

Sl. No.	Marketing behaviour index	Frequency (n=110)	Percentage
1	Low (up to 33.33)	21	19.10
2	Medium (33.34-66.66)	65	59.09
3	High (above 66.66)	24	21.81
	Total	110	100.00

Mean = 41.84

The results revealed that more than half of the floriculturists (59.09%) had a medium level of marketing behaviour. This was followed by 21.81 per cent with a high level and 19.10 per cent with a low level of marketing behaviour.

The predominance of the medium category suggests that most floriculturists possessed a moderate level of involvement in marketing-related activities. There is therefore considerable scope for improving market-oriented skills and practices among the respondents. Better access to market information, price information, organized markets, buyers, market linkages and improved post-harvest and marketing practices may help floriculturists improve their marketing behaviour.

The findings are in agreement with the findings reported by Warkhade (2017) and Tekale *et al.* (2021) ^[10, 11].

4. Conclusion

The study revealed that the majority of floriculturists were middle-aged and had secondary-level education. A

substantial proportion belonged to the semi-medium landholding category and had a medium area under floriculture. Most respondents had medium experience in floriculture farming and medium family size. Nearly half of the respondents had not received any formal training, indicating an important area for extension intervention.

Most respondents belonged to the medium categories of annual income, income from flower cultivation, social participation, sources of information, economic motivation and risk orientation. Wells were the most frequently reported source of irrigation, although several respondents reported more than one source.

With respect to marketing behaviour, 59.09 per cent of floriculturists belonged to the medium category, while 21.81 per cent had a high level and 19.10 per cent had a low level. The mean marketing behaviour index was 41.84. Overall, the findings indicate that there is considerable scope for strengthening the marketing capabilities of floriculturists through systematic extension support, market information services, training and improved market linkages.

5. Extension implications and recommendations

1. **Strengthening training programmes:** Nearly half of the respondents had not received training. Regular training programmes should therefore be organized on improved floriculture production, post-harvest handling and marketing.
2. **Market information services:** Timely information on market prices, demand, market arrivals and potential buyers should be provided through extension agencies and ICT-based communication channels.
3. **Improved market linkages:** Floriculturists should be linked with organized markets, wholesalers, retailers, institutional buyers and other potential markets to improve marketing opportunities.
4. **Post-harvest management:** Training should emphasize harvesting at the appropriate stage, grading, sorting, packaging, storage and transportation to reduce post-harvest losses.
5. **Collective marketing:** Farmer groups and producer organizations may be encouraged to undertake collective procurement of inputs and collective marketing of flowers to improve bargaining power.
6. **Strengthening extension support:** Agricultural universities, Krishi Vigyan Kendras, Department of Agriculture and other relevant agencies should strengthen regular technical and market-oriented extension activities for floriculturists.

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