



ISSN Print: 2664-844X
ISSN Online: 2664-8458
NAAS Rating (2025): 4.97
IJAFS 2025; 7(11): 160-162
www.agriculturaljournals.com
Received: 02-07-2025
Accepted: 06-08-2025

Abhishek R Raut
M.Sc. Scholar, Department of
Agricultural Extension
Education, College of
Agriculture, Vasantao Naik
Marathwada Krishi
Vidyapeeth, Parbhani,
Maharashtra, India

Vidyanand S Manvar
Assistant Professor,
Department of Community
Extension and Communication
Management, College of
Community Science,
V.N.M.K.V. Parbhani,
Maharashtra, India

Rajesh P Kadam
Professor & Head, Department
of Agricultural Extension
Education, College of
Agriculture, Vasantao Naik
Marathwada Krishi
Vidyapeeth, Parbhani,
Maharashtra, India

Sunildutt R Jakkawad
Associate Professor,
Department of Agricultural
Extension Education, College
of Agriculture, Vasantao Naik
Marathwada Krishi
Vidyapeeth, Parbhani,
Maharashtra, India

Sachin S More
Head, Department of
Agricultural Economics,
College of Agriculture,
Vasantao Naik Marathwada
Krishi Vidyapeeth, Parbhani,
Maharashtra, India

Corresponding Author:
Abhishek R Raut
M.Sc. Scholar, Department of
Agricultural Extension
Education, College of
Agriculture, Vasantao Naik
Marathwada Krishi
Vidyapeeth, Parbhani,
Maharashtra, India

Constraints faced by turmeric growers while adopting recommended cultivation practices of turmeric and their suggestions to overcome IT

Abhishek R Raut, Vidyanand S Manvar, Rajesh P Kadam, Sunildutt R Jakkawad and Sachin S More

DOI: <https://www.doi.org/10.33545/2664844X.2025.v7.i11c.953>

Abstract

The study was conducted to Relationship between profile of turmeric growers with their adoption of recommended cultivation practices of turmeric in Marathwada region of Maharashtra. The present study was conducted in two tahsils of Hingoli district viz., Aundha Nagnath and Basmat. Six villages from each tahsil selected by randomly. The data were collected from 10 respondents from each of these 12 villages. Data were collected using a well-structured interview schedule. Data were analysed by using frequency, percentage, mean, Pearson's coefficient of correlation and standard deviation. The result was concluded that the majority of turmeric growers were middle aged farmers (56.67%), educated up to 25% of the respondents, can both read and write, having small land holding farmers land holdings (30.83%), with medium level of annual income (85.83%), medium size of area under turmeric cultivation (51.67), medium farming experience (69.16), medium level of social participation (57.50%), majority of the respondents had not received any training (68.33), medium market orientation and belonged to medium level of knowledge (60.83 %).

Regarding to the correlation analysis, namely education, farming experience, social participation and knowledge were positively and highly significantly related with adoption of recommended cultivation practices of the turmeric growers. Along with this, age, land holding, annual income, area under turmeric cultivation, market orientation were positively and significantly related with the adoption of recommended cultivation practices of turmeric growers.

Keywords: Profile, adoption, correlation, Turmeric Growers

Introduction

Turmeric (*Curcuma longa L.*), the historic and sacred spice of India known as 'Indian saffron', is a major commercial spice crop farmed in India. It is the rhizome, or subterranean stem, of a ginger-like plant. The plant is a herbaceous perennial that grows to a height of 60 to 90 cm. it may also help with skin illnesses, joint discomfort, respiratory difficulties, digestive issues, and so on. It is referred to as the "Sacred Spice" of India because to its use in religious festivals, marriages, and ceremonial celebrations. During the bath, turmeric paste is supposed to cleanse the skin and make the face appear more attractive. It measures the pace at which hair grows on the skin's surface. It exhibits anticancer and antiviral properties. Turmeric is used to cure inflammation, ulcers, worms, cough, bronchitis, dyspepsia, asthma, and skin discolouration (Spice Board India, 2022).

In 2023-24, Maharashtra was the leading turmeric-producing state in India, with a production of 326.97 thousand metric tons. The state's area under turmeric cultivation was 0.90 lakh ha (2.22 lakh acres). Maharashtra was the top producer of turmeric in India, followed by Karnataka (129.4 thousand MT) and Tamil Nadu (111.67 thousand MT). In 2023-24, turmeric cultivation in Hingoli, Maharashtra experienced an increase in both area and production, driven by good demand for seed and expectations of higher yields. The Agricultural Market Intelligence Centre (PJ TSAU) estimates that turmeric production in Maharashtra reached 1.74 lakh tonnes from 0.23 lakh hectares (0.56 lakh acres) with a productivity of 7565 Kg/ha (3062 Kg/acre). While not specific to Hingoli, these figures indicate a significant contribution to the state's overall turmeric output. Turmeric has been used in Indian Ayurvedic medicine from ancient times.

Materials And Methods

Ex-post facto research design was used to conduct the investigation. The present study was conducted randomly in the Hingoli district of the Marathwada region in Maharashtra, where a considerable number of turmeric growers are there. The objective was to analyze the relationship between the profile of turmeric growers with the adoption of the recommended cultivation practices of turmeric. Two taluka, Basmat and Aundha Nagnath, is selected randomly from the district. From the taluka, six villages with a significant number of turmeric growers who were practicing agriculture were randomly chosen. In each village, 10 turmeric growers who are practicing turmeric cultivation were selected randomly, making a total of 120

respondents for the study. One dependent variables adoption and ten independent variables viz, age, education, farming experience, land holding, area under turmeric cultivation, annual income, social participation, training received, market orientation, knowledge, were selected for the study. Data were collected from respondents using an interview schedule through personal interviews. The data were analyzed using frequency, percentage, mean, standard deviation, and Pearson's coefficient of correlation.

Results And Discussions

Constraints faced by turmeric growers in adoption of recommended cultivation practices of turmeric.

Table 1: The various constraints faced by turmeric growers in adoption of recommended cultivation practices of turmeric. N=120

Sr. No	Constraints	Respondents (N=120)		
		Frequency (n = 90)	Percentage %	Rank
1)	Lack of certified Rhizomes, Quality, disease-free seeds are not readily available.	91	75.83	III
2)	Lack of awareness and facilities of soil testing Many farmers do not know the importance of soil testing.	74	61.66	V
3)	Unavailability of organic fertilizers or high cost dung manure, compost or lack of organic ingredients.	66	55.00	VII
4)	Recommended mechanical tools are expensive or unavailable or lack of machines for spraying herbicides.	48	40.00	VIII
5)	Inadequate irrigation system Many areas do not have water scarcity or proper irrigation system.	96	80.00	II
6)	Inadequate information on fertilizer and pesticide recommendations does not guide farmers to use fertilizer in a timely and appropriate quantity.	84	70.00	IV
7)	Ignorance of harvesting and processing technology lack of knowledge of proper boiling, drying, polishing.	103	85.83	I
8)	Weather uncertainty can lead to loss due to lack of timely rainfall and excessive rainfall.	71	59.16	VI

From the table 1 it was observed that turmeric growers face several significant constraints that limit their adoption of recommended cultivation practices. The most prominent constraint, reported by all respondents (85.83%) was the lack of knowledge regarding harvesting and processing technology. 85.83% of growers, was the inadequate irrigation system and irrigation infrastructure, 75.83 % of growers indicated the non-availability of certified, quality, disease-free rhizomes as a serious issue.70.00% of growers

indicated the inadequate information on fertilizer and pesticides recommendation, 61.66% of growers highlighted the lack of awareness and facilities for soil testing. Weather uncertainty was also reported by 59.16% of growers, Unavailability or high cost of organic fertilizers and organic reported 55.00%. In addition to this, (40.00%) of growers faced by unavailability of recommended mechanical tools.

Suggestions obtained from turmeric growers

Table 2: Suggestions obtained to overcome the constraints

Sr. No.	Suggestions	Respondents (N= 120)		Rank
		Freq.	Percent	
1.	Promote drip and sprinkler irrigation systems; provide subsidies and technical support.	102	85.00	I
2.	Strengthen seed rhizome production through agricultural research centers and progressive farmers.	100	83.33	II
3.	Organize regular training programs and on-field demonstrations for farmers.	99	82.50	III
4.	Conduct village-level awareness campaigns and provide mobile soil testing laboratories.	98	81.66	IV
5.	Provide timely weather forecasts and advisories through mobile apps, SMS, and farmer groups.	97	80.83	V
6.	Strengthen extension services and conduct regular advisory and guidance programs.	95	79.16	VI

It is revealed from table 2 that, 85.00 per cent of the growers suggested that, promotion of drip and sprinkler irrigation systems along with subsidies. While 83.33% per cent of strengthen seed rhizome production through agricultural research centers and progressive farmers, focused on the organization of regular training programs and on-field demonstrations (82.50%) and Conducting village-level awareness campaigns and providing mobile soil testing laboratories was ranked fourth (81.66%). Provide timely weather forecasts and advisories through mobile apps, SMS, and farmer groups (80.83%) And To strengthen extension services and conduct regular advisory and guidance programs (79.16%).

Conclusions

The present study highlights the constraints faced by turmeric growers of Marathwada region while adopting the

recommended cultivation practices. Major constraints faced by the turmeric growers were ignorance of harvesting and processing technology lack of knowledge of proper boiling, drying, polishing, inadequate irrigation system many areas do not have water scarcity or proper irrigation system, lack of certified and quality rhizomes, disease free seeds are not readily available. Lack of knowledge about on fertilizer and pesticides recommended, lack of knowledge about soil testing, lack of information about weather forecasting and loss of yield due to rainfall uncertainty, unavailability of organic fertilizers and high cost manure, lack of expensive mechanical tools their unavailability.

The major suggestions made by the turmeric growers were provide information about subsidies, drip and sprinkler irrigation systems and technical support, strengthen seed rhizome production through agricultural research centers and progressive farmers, the suggestion focused on the

organization of regular training programs and on-field demonstrations, conducting village-level awareness campaigns and providing mobile soil testing laboratories, emphasized the need to provide timely weather forecasts and advisories through mobile apps, SMS, and farmer groups, was to strengthen extension services and conduct regular advisory and guidance programs.

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