

Adoption Behaviour of Jasmine Cultivation in Bellary District of Karnataka State

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ABSTRACT

Jasmine is an attractive important commercial crop. It has got importance in all religious, social and cultural ceremonies and other functions performed by all people. The study was conducted in seven villages of Bellary taluka of Bellary district with 100 jasmine cultivating farmers with proportionate random sampling method. Nearly half of the farmers were medium adaptors and 90 per cent of the growers adopted the recommended cultural practices, majority of them adopted pest control method and maximum number of farmers indicated the main constraints in production, marketing and credit in cultivation of jasmine.

Key words: *Jasmine; Adoption; Social and cultural ceremonies; Credit in cultivation;*

Jasmine is an attractive important commercial crop. It has got importance in all religious, social and cultural ceremonies and other functions performed by all people. Jasmine flowers are used for making garlands and cut flower purpose. Essential oils are extracted from the flowers which has not only has good export market but also has medicinal value. In Karnataka, Jasmine is mainly grown in Bellary and Mysore districts with an area of 3244ha producing about 8110 tonnes. The study was conducted in Bellary taluk in Bellary district which has an area of 650 ha. Considering the importance and growing demand for Jasmine, there is lot of scope for increasing the production of Jasmine by increasing yield per hectare through adoption of recommended practices and modern technologies. In this view, the study was designed with the following specific objectives.

1. To study the Adoption behaviour of Jasmine growers about recommended cultivation practices of Jasmine.
2. To study the relationship among personal, socio-economic and psychological characteristics of Jasmine growers and their adoption behaviour
3. To analyze the production, credit and marketing problems of jasmine growers.

METHODOLOGY

The study was conducted in 7 villages of Bellary taluka viz., Janekeunte, Lingadevanahalli, kaggal, Kuntanahal, Yalpi, Belagal and P.D.Halli of Bellary district in Karnataka. Bellary taluka was purposively selected for the study during the year 2005-06. In Bellary taluka, seven villages were selected based on area under Jasmine cultivation. From each of these villages, farmers are selected by proportionate random sampling method, ultimately constituting a sample of 100 farmers. In the light of above objectives of the present study, a structural interview schedule was prepared and data collection was done by personal interview method. Mean and standard deviation was used besides frequencies and percentage to explain different personal, socio-economic and psychological characteristics of the growers. Correlation analysis was compared between adoption and other personal, socio-economic and psychological characteristics. Frequency and percentages were used to explain constraints faced by the farmers.

RESULTS AND DISCUSSION

Adoption level of jasmine growers of recommended practices in jasmine cultivation : A perusal of Table 1 show that about 23 per cent of the jasmine

growers have high adoption level, 43 per cent of the jasmine growers have medium and 34 percent of the total respondents are have low adoption level with regards to the recommended practices in jasmine cultivation. This, findings were in accordance with *Balasubramani (1997)*, *Bindu Chandran (1997)* and *Kadam and Borse (1993)*.

Table 1. Overall adoption behavior level of Jasmine growers regarding the recommended cultivation practice (N=100)

Knowledge category	Score	Jasmine growers	
		No.	%
Low (Mean – 1/2 S.D)	upto 11	34	34.00
Medium (Mean+1/2 S.D)	12-16	43	43.00
High (Mean + 1/2 S.D)	17 & above	23	23.00
S.D-5.295	Mean=13.3716		

Adoption behaviour of jasmine growers regarding the specific recommended jasmine cultivation practices: The data regarding adoption of the recommended practices of jasmine cultivation by jasmine growers is presented in Table 2. An examination of the Table 2 reveals that about 90 per cent of the growers adopted the recommended cultural practices. 36 and 38 per cent of the jasmine growers adopted number of plants / pit, irrigation interval and time of planting respectively. A less per cent of the farmers (21.00%) adopted recommended spacing and (22.00%) fertilizer dose. Amount of pruning (15.00%), pest control

measures (20.00%) and disease control measures (7.00%). Whereas 80 per cent of the farmers adopted the recommended time of pruning. During investigation, it was observed that majority of the jasmine growers adopted cultural practices and time of pruning. These are the practices which do not require special education and these are the common practices. In case of manure application majority of them partially adopted the manure application or non adopted manure application. This might be due to non availability of manure and lack of knowledge, lack of technical guidance received by the jasmine growers. To some extent application of recommended fertilizers and application of micro nutrients was practiced, this might be due to lack of knowledge and lack of technical guidance received by the farmers. Apart from this, the researchers could also guess that non availability of fertilizers when required and their limited supply as the reasons for partial adoption. High cost fertilizer may not interfere in the adoption process in jasmine crop, as jasmine is highly remunerative compared to other field and commercial crops.

A majority of the growers partially adopted the practices like number of plants/pit (64.00%), time of planting (10.00%), recommended fertilizer dose (78.00%), number of times of fertilizer application (62.00%) and Irrigation interval (64.00%). More than 80 per cent of the farmers partially adopted level of pruning (85.00%) and disease control measures (88%).

Table 2. Adoption behavior of jasmine growers regarding specific recommended practices followed N=100

S.No.	Practices in Jasmine cultivation	Adoption behaviour of jasmine growers					
		Full Adoption		Partial Adoption		Non Adoption	
		No.	%	No.	%	No.	%
1	Number of Plants pit	36	36.00	64	64.00	-	-
2	Spacing	21	21.00	32	32.00	47	47.00
3	Time of planting	30	30.00	70	70.00	-	-
4	Quantity of FYM recommended	41	41.00	29	29.00	30	30.00
5	Recommended fertilizer application	22	22.00	78	78.00	-	-
6	No. of times of Fertilizer application	38	38.00	62	62.00	-	-
7	Irrigation Interval	36	36.00	62	62.00	-	-
8	Cultural Practices	91	91.00	9	9.00	-	-
9	Application of micro nutrients	11	11.00	26	26.00	63	63.00
10	Time of Pruning	80	80.00	14	14.00	6	6.00
11	Disease control measures	7	7.00	88	88.00	5	5.00
12	Pest Control Measures	20	20.00	74	74.00	6	6.00

A majority of the Jasmine growers have not adopted the recommended irrigation interval. This might be due to the fact that lack of technical guidance apart from this, the researchers could also guess the reasons such as non-availability of labour, scarcity of water and regular supply of water. Majority of the farmers partially adopted the practice of amount of pruning. This might be due to lack of knowledge and lack of technical guidance. The same may be attributed to diseases and its control and pests and its control measures.

A very few per cent of the farmers not adopted recommended time of pruning (6.00%), disease control measures (5.00%) and pest control measures (6.00%). Whereas, 63 per cent of the farmers not adopted the application of recommended micro nutrients. Apart from the above some of the other reasons that could be attributed for partial or non-adoption of recommended practices are lack of technical guidance, labour problem, price fluctuation, marketing problems etc.

Table 3. Correlation analysis between the selected characteristics of Jasmine growers and their adoption behaviour (N=100)

S.No.	Independent Variables	Correlation (r Value)
1.	Age	0.1869*
2.	Education	0.1733*
3.	Land Holding	0.1832*
4.	Annual Income	0.1892*
5.	Mass media use	0.2034*
6.	Achievement motivation	0.1032NS
7.	Scientific Orientation	0.2089*

*- Significant at 0.05 level

** - Significant at 0.01 level,

NS - Non Significant

Correlation analysis between the selected characteristics of Jasmine growers and their adoption behaviour : The data presented in Table 3 clearly indicates that the characteristics such as age, education, land holding, annual income, mass media use and scientific orientation found to have positive and significant relationship with adoption behavior of jasmine growers. Whereas only achievement motivation found to have positive and non-significant relationship with adoption behavior of jasmine growers.

A perusal of data indicated that age of the

respondents had a positive and significant relationship with their adoption behaviour. The probable reason for this type of finding may be due to the fact the sample of the study area consisted of more of middle and old aged. These respondents might have gained more experience in growing jasmine crop and they might have adopted the recommended practices than the respondents of young age.

Education had a positive and significant relationship with the adoption level of jasmine farmers. Higher education of farmers might have helped them to acquire more knowledge as they might have been exposed to different media, which seem to have helped in better adoption of several recommended practices.

The possible reason for the significant relationship between land holding and adoption behaviour of jasmine growers with larger holding will have a tendency to adopt any new technologies, even some times irrespective of utility and also, their high education level and sound financial back ground are the major factors which influence adoption. Hence the socio-economic characteristics of the growers and significant relationship with jasmine growers and their adoption behaviour.

There was a significant relationship between adoption level and mass media contact of jasmine growers. The probable reason attributed for this type of relation is that increased mass media contact enhanced the ability of farmers to get more information which might have helped the benefit of new technology and also increased mass media contact widens the mental horizon of the farmers to accept and adopt the practices. Mass media provides reinforcement as experiences of successful farmers are also narrated on television, radio, and newspaper.

The data indicated that there was a significant relationship between scientific orientation and adoption level of jasmine growers. The possible reason for this might be due to the fact the jasmine growers with high level of scientific orientation might have evaluated the applicability and feasibility of recommended cultivation practices more objectively following scientific criteria. *Constraints faced by farmers in production marketing and credit* : The Table 4 indicates the main constraints in production, marketing and credit in cultivation of jasmine as revealed by the respondents.

Table 4. Constraints faced by farmers in production marketing and credit (N=100)

S.No.	Constraints	No.	%
1.	Availability of labour	91	91
2.	Marketing facility at local level	78	78
3.	Price fluctuation	70	70
4.	Lack of Processing Unit	67	67
5.	Cloudy Climatic conditions	52	52
6.	Lack of finance	40	40
7.	Poor establishment of seedling	23	23

Note: Multiple response is possible

The study revealed several constraints in production; marketing and credit faced by growers in jasmine cultivation are availability of labour was perceived as a major one. This is true in a country like India where, most of the farm activities are done manually or using animals unlike in the developed countries where, machinization is seen in every aspect of agriculture. Marketing facility at local level was perceived as a major constraint next to non availability of labour. In the study area marketing of jasmine flowers is done through commission agents. The farmers are giving more commission for the agents to sell the produce. The

findings were in conformity with the finding of *Chothe and Borkar (2000)*. So, there is a need to create marketing facility at local level. The price of jasmine is different from one month to the other based on the demand from the buyers. From jasmine flowers, essential oil are extracted when there is less demand in the market the flowers may be used for oil extraction so, the problem was felt by the farmers. If there is cloudy climatic condition the flower yield will be less.

CONCLUSION

Majority of the jasmine growers had not adopted or partially adopted measure disease control, spacing, pest control, fertilizer doses, etc. Educational activities need to be intensified to make the farmers to adopt these practices. Irrigation is very necessary for the improvement of jasmine crop, Hence, the programmes relating to providing loans and subsidies to the farmers especially for the small and marginal growers to develop the source of irrigation need to be strengthened.

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