

GI-tagged Hadagali jasmine in Karnataka- A production and marketing analysis

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Abstract

Jasmine is one of the major commercial flower crops cultivated in all most all districts of Karnataka. Hadagali jasmine (*Jasminum azoricum*) grown in Huvina Hadagali taluk of newly formed Vijayanagara district has got Geographical Indication (GI) due to its unique fragrance. A large section of the farmers surrounding the villages of Huvina Hadagali cultivate jasmine as their source of livelihood. Research studies to examine the production practices, marketing and constraints associated with jasmine cultivation in Huvina Hadagali were limited. Hence, a study was undertaken to understand the production and marketing practices of Hadagali jasmine. The primary data was collected from 60 jasmine growers during 2020-21. The results of the study have shown that with the average yield of the flowers at 3,236 kg per acre, the total cost of cultivation was Rs. 2,24,069 per acre and farmers realized gross and net returns of Rs. 4,53,579 and Rs. 2,29,511 respectively. The benefit to cost ratio at 2.02 showed that the establishment and maintenance of jasmine garden was economically viable. About 70 per cent of sample farmers sold jasmine to distant markets and the trade was facilitated by commission cum wholesalers. A kilogram of GI jasmine was transformed into 20 lengths of 4-6 ft in wholesale market and are sold as strings of 1-1.5 ft in retail market at Rs.20/length. The price spread between producer and consumer in the most frequently traded channel is Rs. 280 per kg and share of the producer in consumer rupee was only 35 per cent. GI jasmine is an important source of livelihood for different value chain actors and provides ample opportunities for floriculture business. Hence, support should be extended to jasmine growers to form farmer producer organizations (FPO) which will facilitate both forward and backward linkages, explore options for value addition and promote exports to enhance farmers income.

Key words: Geographical indication, jasmine, Huvina Hadagali, farmer producer organizations, marketing

Introduction

Flowers are inseparable from the social fabric of human life. Jasmine is one of the oldest fragrant flowers and are widely grown in warm parts of southern Asia, India, Europe, Africa and the Pacific regions. In India, Jasmines are cultivated throughout the country. However, the largest area under jasmine flower production is in Tamil Nadu with 69.48 per cent of all India production followed by Karnataka at 19.72 per cent (NHB, 2018). Apart from internal trade, fresh flowers of jasmine are exported to Malaysia, Singapore and Sri Lanka. In Karnataka, *Jasminum auriculatum* is grown in Huvina Hadagali and Hagaribommanahalli taluks in Vijayanagara district.

Hadagali jasmine (*J. azoricum*) is the variety of jasmine grown only in Huvina Hadagali taluk located 73 kilometres from Vijayanagara District. The name of the taluk, Huvina Hadagali literally translates into the meaning 'land of flowers' because of its extensive cultivation. Jasmine flowers are very fragrant and are known to be in use since 15th century; period of Vijaya Nagar Empire (The Geographical Indication of Goods, 1999). The variety is localized to around 25 villages in Huvina Hadagali taluk of Vijayanagara district, Northern dry zone of Karnataka. The unique characteristic of the flower is its fragrance. The volatile oil (essential oil) content in this variety is mild, which seem to be influenced by dry sandy soil prevailing in the region around Hadagali taluk of Bellary district. The dry climate (low sparse rainfall) also adds to the favourable environment to the crop, which is responsible for the particular fragrance of the

flower. The unique characteristics of Hadagali jasmine are due to the combinations of inherent genetic constitution of the variety and the geographical area where it is grown. The Department of Horticulture, Government of Karnataka secured geographical indication (GI) tag for jasmine grown in Huvina Hadagali in 2007 (The Geographical Indication of Goods, 1999).

Of the 2777 ha of commercial flowers grown in Vijayanagara district, jasmine has the second highest area under cultivation after marigold. Jasmine in Vijayanagara district is grown in an area of 903 hectares(ha) with production of 5188 metric tons of which 784 ha was grown in Huvina Hadagali during 2017-18 (GoK, 2018). A large section of the farmers surrounding the villages of Huvina Hadagali cultivate jasmine as the source of their livelihood. The jasmine grown in Huvina Hadagali is geographically indicated crop, the benefits realized by the growers due to geographical indication is not studied. Hence, a modest attempt was made to understand production, marketing and constraints associated with GI tagged jasmine cultivation in Huvina Hadagali taluk. The specific objectives of the study were; to study the production practices and constraints in jasmine cultivation and to study the marketing.

Material and methods

A multistage sampling technique was adopted to select the villages and cultivators of jasmine. After selection of Huvina Hadagali taluk in the first stage, in the second stage, villages in the taluk were selected based on the area under jasmine

cultivation which was obtained from the taluk Department of Horticulture. Accordingly, four villages within the taluka namely Hanakanahalli, Devagondanahalli, Vinobanagara and Gujunuru were selected. Sample jasmine growers of jasmine from the identified villages were randomly selected with different age group of jasmine orchards. A total of 60 jasmine growers were selected to elicit primary information on production and marketing practices through well-structured questionnaire. The primary data was collected during 2020-21.

Results and discussion

Socio-economic profile of sample jasmine growers: The socio-economic profile of member farmers is presented in Table 1. About 60 per cent of the respondents were between the age of 35-50 years and the average family size of the household was seven. The distribution of respondents based on land holdings showed 46.6 per cent had medium landholdings and about 26 per cent were smallholders. 36 per cent of the sample respondents earned annual income between 1-2 lakhs whereas 30 per cent of them earned less than one lakh followed by 26.6 per cent in the range of 2-3 lakhs. Of the average land holding size of 5.56 acres, 79 per cent was irrigated land while the remaining 21 per cent was dryland. The gross cropped area of sample respondents was 5.14 acres, of which horticultural crops constituted for 29.17 per cent and jasmine occupied relatively larger proportion with 23.54 per cent.

Production practices and economics of GI jasmine: For establishment of new garden, the farmer purchased the Table 1. Socio-economic profile of sample jasmine growers

Sl No.	Particulars	Number of farmers (n=60)	Percentage
1	Age group		
	Below 35 years	5	8.33
	35-50 years	36	60
	Above 50 years	19	31.66
2	Family size		
	Men	3.16	45.33
	Women	3	43.04
	Children	0.81	11.62
3	Education		
	Illiterate	6	10
	Primary school	14	23.3
	Middle school	11	18.3
	High school	15	25
	PUC	6	10
	Degree	5	8.33
	Others	3	5
4	Land holding		
	Small (<2.5 acres)	16	26.6
	Medium (2.5-5 acres)	28	46.6
	Large (>5 acres)	16	26.6
5	Income (annual)		
	Less than 1 lakh	18	30
	1 lakh to 2 lakhs	22	36.6
	2 lakhs to 3 lakhs	16	26.6
	More than 3 lakhs	4	6.66
6	Land utilization		
	Irrigated	4.39	78.95
	Dryland	1.17	21.04
	Total	5.56	

planting material locally from the fellow farmers. The average establishment cost of jasmine garden in study locations was Rs. 30,864.75 per acre of which the labor cost and material cost, was Rs. 12,689.85 per acre and Rs. 18,174.90 per acre respectively. The cost of planting material accounted for 40.27 per cent of the total establishment cost and accounted for 68.39 per cent of the material cost.

The total cost of cultivation including variable cost and fixed cost accounted to an average of Rs. 2,24,069 per acre. The average flower yield was found to be 3236 kg per acre and the average price realized by farmers was Rs. 140/ kg of jasmine. The average gross returns and net returns was Rs. 4,53,579/acre and Rs. 2,29,511/acre respectively. The cost of production was Rs. 69/kg and the benefit-cost ratio (BCR) was found to be 2.02. A study conducted by Vanishree (2007) observed that the benefit cost ratio for jasmine was 2.28 which was marginally higher than the findings from the present study. The harvesting charges were paid in relation to the quantity of flowers harvested. During peak harvest period, as the demand for flower increases the charges for harvesting will be on number of kgs of jasmine harvested in shifts. On an average, a labour harvests about 2-3 kgs during morning shift and earns about Rs. 160-240 and and similarly during evening shift, the labour earns another Rs. 160-240. It is economical for labour to harvest on kg basis (Rs. 480) rather than daily wages (Rs. 200-250/day). Jasmine as an enterprise apart from providing income to the growers also provides employment opportunities to the labour throughout the year.

Sl. No.	Particulars	Value
1	Cost of cultivation (Rs. /acre)	2,24,069
2	Yield (kg/acre)	3236
3	Average price (Rs. /kg)	140
4	Gross returns (Rs. /acre)	4,53,579
5	Net returns (Rs. /acre)	2,29,511
6	Cost of production (Rs. /kg)	69
7	Benefit-cost ratio (BCR)	2.02

Marketing of GI jasmine: The harvesting of jasmine starts during the months of March-April and continues till November. The peak harvesting months were May-June during which about 10 kg/ day was harvested by each farmer whereas during the months of October-November on an average about 4 kg/ day is harvested by farmer on daily basis. The average number harvesting days was 194 days in a year. After harvest, the farmers often packed loose jasmine in gunny bags of 10 kg capacity and the bags were sprinkled/dipped in cold water to keep them fresh until they reach the destination.

Jasmine flowers from the study area were sent to different markets such as Davangere, Gadag, Haveri, Shivamogga, Dharwad districts in Karnataka by *tempo*s. The trade is facilitated by commission agent cum wholesalers who arrange for the sale of flowers in the above markets. The commission agents charged a commission of 12 - 13 per cent of the sale proceeds from the producer-seller. Majority of the sample farmers from the study location sold to Davangere market due to high demand and the most accessible market (70 kms) for the growers from the study area. On an average, jasmine growers in the study area incurred Rs. 30.2/kg of jasmine sold to Davangere market of which 60.26 per cent was towards commission charges paid to the wholesaler cum commission agent.

The process of price discovery for jasmine is not transparent. The commission agent-cum-wholesalers determines the price of the flowers based on the demand in the end market. The price of jasmine flower increases during festival and functions to the tune of Rs. 300/kg which is an increase more than 100 per cent during normal times. The months of June and July which are considered as inauspicious (*Ashada*) according to Hindu calendar and no functions are held and hence the demand for the flower's slumps and the price declines to about 60-70 per cent compared to normal periods.

The wholesaler cum commission agent in primary market (Davangere) does transformation by tying loose jasmine in bunches of 250 gms, 500 gms and one kg or strings of six-eight feet length and were marketed to Mangalore and Goa markets for retail sales. A kg of GI jasmine was transformed into 20 lengths of 4-6 ft per length while in the end market or the retail market they were sold in strings of 1-1.5 ft length for Rs 10-20/length. The retailers also prepared various items from jasmine flowers like strings and big/small garlands, depending on the demand for each article and sold them directly to the consumers.

On an average the cost incurred for tying the flowers was Rs. 50/kg. The average marketing charges incurred in the terminal markets (Mangalore & Goa) was Rs. 100/kg which was primarily for labour charges. About 20 commission agents cum wholesales operate in Davangere market. The average month-wise quantity handled and commission charges realized by them is presented in table 3. On an average commission agent cum wholesaler realized commission charges of Rs. 43,08,000 in jasmine trade (Table 3).

Table 3. Average month-wise jasmine quantity handled and value realized by commission agents

Month	Quantity handled (qtls)	Price/ qtl	Value (Rs.)	Commission charges (Rs)
April	600	14,000	84,00,000	8,40,000
May	900	8000	72,00,000	7,20,000
June	600	12,000	72,00,000	7,20,000
July	300	18,000	54,00,000	5,40,000
August	600	12,000	72,00,000	7,20,000
September	300	10,000	30,00,000	3,00,000
October	240	15,000	36,00,000	3,60,000
November	60	18,000	10,80,000	1,08,000
Total	3600	1,07,000	4,30,80,000	43,08,000

Margins realized across market functionaries in GI jasmine trade:

Majority of the sample farmers (70%) in the study area sold jasmine to wholesalers cum commission agent in Davangere market and the margins realized by the market functionaries is presented in Table 4. The margins realized by value chain functionaries showed that the wholesaler cum commission agent realized Rs. 110/kg while retailer realized Rs. 400/kg. The producer share in the consumer rupee was 35 per cent. The farmers had to pay Rs 10-12 as commission charges for every 100 rupees of value of jasmine transacted. On daily basis about five to six quintals of jasmine is traded from Huvina Hadagali to

Davangere and the average commission charges collected was Rs 7000. The profits realized by the market intermediaries due to value addition was more than 50 per cent. Study conducted by Bhanumathy and Sitadevi (2003) on marketing jasmine flower in Tamil Nadu also concluded that there was a need to establish cooperative market for flower marketing and regulate the activities of the middlemen.

Table 4. Marketing margins across market functionaries of GI jasmine trade

Particular	Charges / percent
Primary wholesale price of jasmine	140
Charges borne by jasmine farmer	30.2
Producer's price (1 - 2)	110
Charges borne by wholesaler cum commission agent	50
Selling price of the wholesaler cum commission agent	300
Margin of wholesaler cum commission agent	110
Percentage to consumer's price	28
Charges incurred by the retailer	20
Retail price of jasmine	400
Margin of retailer	80
Percentage to consumer's price	20
Producer's share in consumer rupee (%)	35

The findings of the study have shown that GI jasmine is an important source of livelihood for different value chain actors and provides ample opportunities for floriculture business. The annual employment generated from harvesting of GI jasmine alone is to the tune of 0.98-million-man days and an important source of income for farmers cultivating jasmine. Hence, it is critical to address the constraints and strengthen the value chain. As the shelf life of the jasmine is low, efforts have to be made to improve shelf life through improved technology. The commission charges collected by intermediaries on an average per day is Rs 7000 for jasmine trade and the producer share is only 35 per cent. To improve producer's share in consumer rupee, support can be extended to jasmine growers to form farmer producer organizations (FPO) and facilitate both forward and backward linkages. Also, FPO can explore options for value addition and promote exports to enhance farmers income.

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