Journal of Spices and Aromatic Crops
Vol. 26 (1) : 63-65 (2017)
www.indianspicesociety.in/josac/index.php/josac

Indian Society for Spices

Socio-economic analysis of lavender crop in Himachal Pradesh

S Singh* & S S Dhillon[1]

CSIR-Institute of Himalayan Bioresource Technology,
Palampur-176 062, Himachal Pradesh.
**E-mail: sukhjinder@ihbt.res.in*

Received 10 September 2015; Revised 06 July 2016; Accepted 27 September 2016

Abstract

The data collected from 20 lavender growers of three blocks of Chamba district by personal interview using multi-stage purpose sampling technique. In lavender farms share of male labour was found to be more than female labour. Working as daily paid labourers followed by farming, service and business was the main occupation of adult family members. BCR (over total variable cost) as well as BCR (over total cost) was worked out as 3.170 and 0.642 respectively for lavender crop. Family labour income and net income measures per hectare were found to be negative for lavender crop. About 95% and 25% of selected lavender farmers' responded positively regarding availability of good quality seed/seedlings and disease problem in seed/seedlings respectively, in the initial stage of sowing of lavender crop. Besides, 90% responded that cost of marketing of produce was high, all the respondents were hiring transport to market the produce. Likewise, 65% responded that there is lack of cheap credit from banks for lavender farming. The lack of profitability indicates the need to strengthen R&D work, extension services, training of farmers, establishment of cold storage facilities, and co-operatives farming societies for enhancing prospects of lavender farming.

Keywords: benefit cost ratio, cost concepts, income measures, lavender

The cultivation of aromatic crop like lavender in the cool temperate niches of hills offers an opportunity for economic development of Himachal Pradesh. Institute of Himalayan Bioresource Technology in association with HP Krishi Vishvavidyalaya, Palampur has been instrumental in introducing lavender cultivation in Salooni, District Chamba. An oil extraction unit has also been set up (Bali 2003).

A field survey was undertaken to collect data on various aspects of lavender cultivation and the constraints in the production of this crop in the state of Himachal Pradesh. In the first stage, Chamba district having maximum producers and area under lavender crop was selected. Twenty farmers growing lavender commercially were selected purposively from the study area for detailed data collection.

For socio- economic analysis of lavender cultivation, primary data were collected through personal interview method with the help of a well structured and pre-tested schedule

[1]Guru Nanak Dev University, Amritsar-143005, Punjab

for the year 2012–13. The primary data with respect to household composition, educational profile, land ownership, cropping pattern, costs of inputs, returns and the problems involved in cultivation of lavender was collected from selected lavender growers from Himachal Pradesh.

The data pertaining to input use pattern in lavender farming of Himachal Pradesh was collected from the sample farmers for the year 2012–13. For valuation of various inputs, market price or cost were used in the analysis. For various machine related farm operations, rental value of farm operation prevailing in the selected villages was used for calculating total variable cost. Lavender in the study area is having rainwater as irrigation facility. Farm labour used in various farm operations was calculated at the prevailing wage rate. Interest on the working capital was calculated @7% for the life period of the lavender crop as per its season. Besides, for bringing out the gross returns, price realized by the respondent farmers by selling the produce was used. Average output obtained was recorded on the basis of respondent's perception. Benefit cost ratios were calculated for lavender crop to make the results of the study more specific.

Different cost concepts and income measures were computed to find out the profitability of lavender cultivation in the study areas (Commission for Agricultural Costs and Prices 2014). The respondent farmers were asked about the various constraints affecting the productivity of lavender crop. Simple tabular analysis using averages and percentages was carried out to identify constraints. The socio-economic characteristics of sample respondents which includes their household composition, educational status, occupational status, land details, and cropping pattern followed on their farms are analyzed.

The family composition of the average number of male members, female members, children (of 12-18 years age) and children (below 12 years age) per farm were 1.90, 1.65, 0.80 and 0.65, respectively with a percentage of 38%, 33%, 16% and 13%, respectively. The educational level of a person plays an important role in adoption of latest farm technology. Therefore, the educational status of head of the family who acted as decision maker was enquired from the sample farms and noted that all the farmers were literate. However, 25% was having elementary and middle school education, 45% were having education up to secondary school and 5% were graduate.

The occupational status analysis indicated that daily paid labourers was the main occupation for 36.84% of the lavender farmers. The remaining 21.05% were in some service/jobs, 26% in farming occupation and 15.79% were engaged in some petty business. It was also observed that the average operational holding was 1.07 hectares for lavender farms of Himachal Pradesh.

Benefit cost ratio (BCR) was undertaken to examine the profitability from lavender crop on sample farm (Table 1). Total variable cost of growing lavender has been worked out at Rs. 27281 ha^{-1}. The major constituents of total variable cost were human labour (Rs. 16374), planting material/seed (Rs. 3750), fertilizers (Rs.

Table 1. Benefit cost analysis of lavender farms

Particulars	Per hectare
Human labour (Rs.)	16374
Machine labour (Rs.)	458
Seed/ seedlings (Rs.)	3750
Fertilizer use (Rs.)	3347
Plant protection chemicals *i.e.* PPC (Rs.)	1281
Irrigations (Rs.)	1152
Interest on variable cost @ 7% p.a. (Rs.)	923
Total variable cost (Rs.)	27281
Rental value of owned land (Rs.)	82196
Depreciation (Rs.)	6147
Interest on fixed capital @ 12% p.a. (Rs.)	19150
Total cost	134774
Yield (kg ha^{-1})-main product	29
Gross returns (Rs.)	86475
Returns over variable cost (Rs.)	59194
BCR (over total variable cost)	3.170
BCR (over total cost)	0.642

Table 2. Cost concepts and income measures for lavender crop on sample farms

Particulars	Per ha Lavender
Cost concepts	
Cost A1	22218
Cost A2	22218
Cost B1	41367
Cost B2	123563
Cost C1	51425
Cost C2	133621
Cost C3	146984
Income measures	
Family labour income (Rs.)	-37088
Farm business income (Rs.)	64257
Net income (Rs.)	-47147
Return per rupee (RPR)	0.647

3347), plant protection chemicals (Rs. 1281), and machine labour (Rs. 458). Yield of lavender oil on an average worked out to be 29 kg ha^{-1} and gross returns were Rs. 86475 ha^{-1}. Returns over variable cost for lavender crop worked out at Rs. 59194 ha^{-1}. BCR (over total variable cost) as well as BCR (over total cost) was 3.170 and 0.642 respectively for lavender crop.

Farmers of lavender were getting subsidy on planting material. Returns over variable cost were found to be positive. BCR (over total cost) was less than BCR (over total variable cost), due to adding some other cost components to total variable cost like rental value of owned land, depreciation, and interest on fixed capital assets.

Cost concepts (A_1, A_2, B_1, B_2, C_1 and C_2) and income measures (family labour income, farm business income, net income and return per rupee) for lavender crop has been presented in Table 2. Overall costs A_1, A_2, B_1, B_2, C_1 and C_2 were found to be Rs. 22218, Rs. 22218, Rs. 41367, Rs. 123563, Rs. 51425 and Rs. 133621 respectively. Family labour income, farm business income, net income and returns per rupee were Rs. (-) 37088, Rs. 64257, Rs. (-) 47147 and 0.647 respectively. The farmers of this region grow these kinds of cash crops only in some proportion on their farms and not on all land holdings because crops like lavender are risky and there is high price volatility, during some years it gives high profits and may lead to losses in other years as price falls. Majority of other crops being grown are those having minimum support price (MSP) like wheat and maize which gives them assured income.

The farmers selected responded that there was availability of seed/seedlings at reasonable price. Seventy percent of farmers agreed that there was information flow from the organizations and 65% of them were aware of availability of agronomic practices in local language. The response was 45% for lack of extension. The problem of weed infestation was reported by all and there was no government policies lavender farming. Grading of produce was adopted by 65% of farmers and 75% agreed that grading offers better price. The middle men plays important role in marketing and there was no regular market for lavender in Himachal Pradesh. Lack of credit facility and high interest by banks were reported by 65% and 75% farmers, respectively. More effort is required to popularize lavender cultivation in Himachal Pradesh.

References

Bali Ravi 2003 Lavender: A Fragrant Hope for Hills. The Tribune, June 9. Retrieved from http://www.tribuneindia.com/2003/20030609/agro.htm#3.

Commission for Agricultural Costs and Prices 2014 Cost Concepts, Directorate of Economics and Statistics, Govt. of India. Retrieved from http://eands.dacnet.nic.in/Cost_Concept/Cost_Con.pdf.