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Marketing margins and channels for stevia cultivated in mid-hills of Himachal Pradesh

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ABSTRACT

The present study was carried out to evaluate the marketing margins and costs involved under different market phases and channels of stevia under the mid-hills of Himachal Pradesh. Various intermediaries were identified in different channels and this separation further enabled to evaluate the marketing margins of different middlemen involved. Generally the efficiency of marketing system is reflected by the volume of marketing margins. The higher market margins show less shares of producers and more benefits to marketing middlemen and vice-versa. Six common marketing channel producers and consumers were studied viz Channel 1 (processing units outside state), Channel 2 (producers - co-operative societies – consumers), Channel 3 (producers - local trader cum commission agent - processing units outside state), Channel 4 (producers - local trader cum commission agent – wholesalers – processing units), Channel 5 (producers – traditional healers) and Channel 6 (producers and consumers). The results revealed higher marketing margins for stevia. The marketing margins were 47.57 per cent when stevia was marketed through Channel 2 while in Channel 3 the marketing margins were 32.56 per cent. These margins indicate an inefficient marketing system which may reduce the profit of stevia growers. However an update of marketing information is pre-requisite for effective grower-based marketing systems.

Keywords: Stevia; marketing margins; costs; channels

INTRODUCTION

Stevia botanically known as *Stevia rebaudiana* Bertoni belonging to family Asteraceae is a sweet herb native to Paraguay and is widely distributed in USA, Brazil, Japan Korea, Taiwan and southeast Asia. It is widely grown for its sweet leaves. It is becoming a major source of natural sweetener as an alternate to sugar. It is rapidly replacing the chemical sweetener like splenda, saccharine and aspartame.

Due to increased awareness towards use of herbal and traditionally accepted medicinal plants a very good market both domestic and international is coming up for the medicinal plants and herbals. Stevia is one of among most lucrative herbal plants which provides a whopping up to Rs 11.05 lakhs returns in a cycle of three years per acre (www.steviaindianet.com). The cost of plantation also accrues once in five years because of its longer life cycle. Apart from this it is rich in nutrients, like protein, magnesium, riboflavin, zinc, chromium, selenium, calcium and phosphorus.

The study analyses the marketing aspects of stevia farming in the state. Attempt has been made to determine the various marketing costs involved in the marketing of stevia. These costs were determined by the producer's performance and efficiency of different marketing functionaries which in turn influenced the returns to the growers. During marketing stage the producers face manifold problems which have direct bearing on their prosperity. Even if the production technology is advanced unless marketing is improved simultaneously efforts to increase the yield and production may go waste. It is learnt that efforts have been made to improve the marketing through enforcement of laws. However these efforts were directed towards non-perishable goods like cereals and very limited efforts have been made in case of marketing of medicinal and aromatic plants. This kind of problems encountered by the farmers in production and marketing can be documented so that efforts can be put to solve the issue. This information can also be of immense use to farm financing institutions. With this background and views on role of marketing this study was aimed to further contribute to stevia marketing system in Himachal Pradesh.

METHODOLOGY

The study was based on primary data collected from Joginder Nagar area of district Mandi, HP. The sample size of 25 farmers and five local traders was kept based on the availability of respondents.

A complete list of farmers was prepared in consultation with the State Directorate of Horticulture, State Department of Ayurveda, State Forest Department and Revenue Department, HP. A multistage random sampling design was used for the selection of stevia producers. Five wholesalers were also randomly selected from the Amritsar market dealing with stevia through personal interview. To analyse the data both arithmetic means and weighted averages were used.

Marketing margin: Marketing margin of middleman was calculated as the difference between the total payments (marketing cost + purchase price) and receipts (sale price) of the middlemen and calculated as follows:

$$A_{mi} = P_{Ri} - (P_{pi} + C_{mi})$$

where

A_{mi} = Absolute margin of middlemen

P_{Ri} = Total value of receipts per unit (sale price)

P_{pi} = Purchase value of goods per unit

C_{mi} = Cost incurred on marketing per unit

Price spread: The difference between the price paid by consumer and price received by the producers was the marketing margin or price spread. Generally the economic efficiency of marketing system is measured in terms of price spread. Smaller the price spread greater is the efficiency of the marketing system.

Net marketing margin: The net margin of a specific agency is the net earnings which it earns after paying all marketing costs (Khair et al 2008). Net earnings of various market agencies involved in the marketing of stevia were computed using the formula:

$$N_m = P_s - M_c$$

where

N_m = Net marketing margin

P_s = Price spread by the specific agency

M_c = Marketing cost per unit handled

RESULTS and DISCUSSION

Marketing channels

Marketing channel is a business structure reaching from the point of product origin to the consumer through which a manufacturer of marketer motivates, communicates, sells, ships, stores, delivers and services the customer's expectations and the product's needs (McCallay 1996). The marketing channels generally used in the area through which stevia reaches from the production to the ultimate consumer are shown in Table 1.

It was found that most of the produce was marketed through Channel 2 followed by Channels 3, 1, 5, 6 and 4. Farmers preferred Channel 2 through which they sold 42.99 per cent of their produce followed by Channel 3 through which 21.52 per cent of produce was sold.

Marketing costs

Marketing costs incurred by producers: In Channel 1 farmer himself brought the whole produce to the distant market outside the state and sold it directly to the processing industry. The total marketing cost incurred by the producer was worked out to be Rs 457.36 per quintal and the major item of cost was the transportation cost amounting to Rs 201.01 per quintal followed by Rs 200 per quintal of taxes, packing material cost, loading charges etc.

In Channel 2 farmers sold their produce to the village cooperative societies. The major marketing cost a farmer had to bear was the commission charges of the society accounting Rs 960.00. Total

Table 1. Different marketing channels followed for the marketing of stevia in the study area

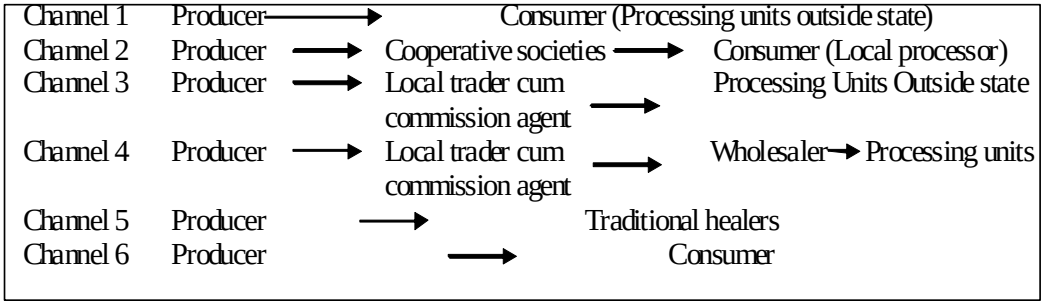

Table 2. Quantity of stevia marketed through various channels

Channel	Quantity marketed (%)
Channel 1	17.87
Channel 2	42.99
Channel 3	21.52
Channel 4	1.26
Channel 5	10.93
Channel 6	5.43
Total	100.00

marketing cost incurred by the producer was Rs 1007.85 per quintal.

In Channels 3 and 4 farmers sold their produce to the local traders. The major marketing cost a farmer had to bear was the commission of the local trader which was Rs 680 per quintal and total marketing cost incurred here by producer was Rs 727.85 per quintal.

In Channel 5 farmers sold their produce to the traditional dealers of the nearby area by vending. The major cost a farmer had to bear was the transportation cost which came out to be Rs 195.90 per quintal followed by the cost of packing material and telephone vending. Total marketing cost incurred here by producer was estimated to Rs 267.00 per quintal.

In Channel 6 farmers sold their produce to the households in the nearby area. Total marketing cost incurred here by producer in this channel was worked out to be Rs 309.60 per quintal.

Table 3. Marketing costs and margins of functionaries in the marketing channels of stevia (Rs/q)

S/N	Particulars	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6
Marketing costs incurred by producer							
Net price received by farmer		10542.64	8992.15	8772.15	8772.15	10233.01	12690.40
A	Labour costs						
1	Carrying to road charges	5.40	5.40	5.40	5.40	5.40	5.40
2	Packing	6.45	6.45	6.45	6.45	12.50	12.50
3	Loading/unloading	12.50	0.00	0.00	0.00	6.50	6.50
4	Commission charges	0.00	960.00	680.00	680.00	0.00	0.00
B	Packing material cost	24.00	24.00	24.00	24.00	31.70	31.70
C	Transportation	201.01	0.00	0.00	0.00	195.90	228.50
1	State tax	200.00	0.00	0.00	0.00	0.00	0.00
2	Telephone charges	8.00	12.00	12.00	12.00	15.00	25.00
	Total	457.36	1007.85	727.85	727.85	267.00	309.60
Price received by farmer/purchase price of wholesaler or processor (consumer)		11000	10000	9500	9500	10500	13000
Marketing costs incurred by cooperative/local trader							
A	Gross price paid by cooperative/local trader	11000	10000	9500	9500	10500	13000
B	Cost components of cooperative/local trader						
1	Labour charges		4.00	4.00	4.00		
2	Loading/unloading		10.00	10.00	10.00		
4	Room rent & telephone charges		10.00	12.00	12.00		
5	Transportation		145.87	164.54	164.54		

S/N	Particulars	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6
6	Mandi tax		240.00	240.00	240.00		
7	State tax		0.00	12.00	12.00		
	Total		409.87	442.54	442.54		
C	Cooperative/local trader margin		1590.13	2057.46	2057.46		
D	Cooperative/local trader selling price/wholesaler purchase price		12000	12000	12000		
Marketing costs incurred by wholesaler							
A	Gross price paid by cooperative/local trader				12000		
B	Cost components of cooperative/local trader						
1	Labour charges				4.00		
2	Loading/unloading				5.00		
4	Room rent & telephone charges				5.00		
6	Transportation				50.26		
7	Mandi Tax				300.00		
	Total				364.26		
C	Wholesaler margin				2635.74		
D	Wholesaler selling price/ consumer purchase price	11000	12000	12000	15000	10500	13000

Among all the channels, Channel 6 (direct sale to households) resulted into highest net price received by the producers Rs 12690.40 per quintal but only 5.43 per cent of the total produce was sold through this channel as per the demand in the area. Next important channel in terms of net price received by growers was Channel 1 followed by Channels 5, 2, 3 and 4. Table 3 describes the marketing costs and margins of different functionaries in the different marketing channels of stevia.

Marketing cost incurred by intermediaries

The intermediaries found in the marketing were the cooperative societies in Channel 2 and the local traders in Channels 3 and 4. The Mandi tax and transportation constituted the important items of marketing costs.

In Channel 2 cooperative societies spent Rs 409.87 per quintal in the marketing of which mandi taxes constituted Rs 240 per quintal; transportation cost was the next highest cost to be spent (Rs 145.87 per quintal) followed by room rent, telephone charges, loading/ unloading charges etc.

In Channels 3 and 4 local traders spent Rs 442.54 per quintal in the marketing. Similar trend of share of cost as in Channel 3 was observed.

The intermediary marketing margin was found to be 13.25 per cent (Rs 1590.13 per quintal) in case of Channel 2 and 17.15 per cent (Rs 2057.46 per quintal) in case Channel 3 and 13.72 per cent (Rs 2057.46 per quintal) in case of Channel 4.

Price spread

A cursory glance at Table 4 reveals that in absolute terms stevia growers received highest net returns in Channel 6 followed by Channels 5, 1, 2, 3 and 4. Net margins of village cooperatives in Channel 2 were found to be 13.25 per cent for Channel 2 while their expenses were 3.42 per cent. Net margins of local traders were on higher side in Channel 3 compared to Channel 4; in percentage terms net margins of local traders turned out to be 17.15 per cent for Channel 3 followed by Channel 4 (13.72%). Local trader's expenses varied from 3.69 per cent in Channel 3 to 2.95 per cent in Channel 4. The wholesaler's net margins were computed at 17.57 per cent in Channel 4. The respective marketing expenses were 2.43 per cent of consumers' price.

CONCLUSION

The results showed wide range between producer and consumer price ie the marketing margins which were 42.99 and 21.52 per cent for stevia in Channel 2 and Channel 3 respectively. These enormous marketing margins need to be reduced so that farmers can get the maximum benefits of their produce. Some of the important policy implications emerged

Table 4. Price spread of stevia in different marketing channels (Rs)

S/N	Particulars	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6
1.	Grower's						
	Sale Price	11000.00 (100.00)	10000.00 (83.33)	9500.00 (79.17)	9500.00 (63.33)	10500.00 (100.00)	13000.00 (100.00)
	Expenses	457.36 (4.16)	1007.85 (8.40)	727.85 (6.07)	727.85 (4.85)	267.00 (2.54)	309.60 (2.38)
	Net Price received	10542.64 (95.84)	8992.15 (74.93)	8772.15 (73.10)	8772.15 (58.48)	10233.01 (97.46)	12690.40 (97.62)
2.	Cooperative/ Local Trader						
	Sale Price		12000.00 (100.00)	12000.00 (100.00)	12000.00 (80.00)		
	Expenses		409.87 (3.42)	442.54 (3.69)	442.54 (2.95)		
	Net Margins		1590.13 (13.25)	2057.46 (17.15)	2057.46 (13.72)		
3.	Wholesaler						
	Sale Price				15000.00 (100.00)		
	Expenses				364.26 (2.43)		
	Net Margins				2635.74 (17.57)		
4.	Consumer's Price	11000.00 (100.00)	12000.00 (100.00)	12000.00 (100.00)	15000.00 (100.00)	10500.00 (100.00)	13000.00 (100.00)

Figures in parentheses indicate percentages to total

from the present study are discussed as under:

a) There is a need to train local people in cultivation of the medicinal and aromatic plants. For this purpose it is also suggested that the low cost techniques to reduce the initial planting cost be explored for the adoption of scientific cultivation by the farmers.

b) Poor or unorganized marketing was found to be the major bottleneck in the cultivation of medicinal and aromatic plants. Hence there is need to include stevia in the regulated markets.

c) For better disposal of stevia produce the producer-industry linkages need to develop model of contract farming to ensure better marketing.

d) Market and trade avenues for the medicinal and aromatic crops should be properly organized in order to provide proper incentive to the cultivators and basic information about the trade should be provided to them.

e) Identification of location specific medicinal and aromatic crops with the post-harvest technology needs to be developed and disseminated to the cultivators.

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