Advances in Economics and Business Management (AEBM)
p-ISSN: 2394-1545; e-ISSN: 2394-1553; Volume 4, Issue 2; January-March, 2017, pp. 102-106

http://www.krishisanskriti.org/Publication.html

Economics Analysis of Marketing Cost, Margin and Price Spread of Guar [*Cyamopsis tetragonoloba* (L.) Taub] through different Marketing Channels in Hisar District

Mohinder Singh[1] and EIla Rani[2]

[1]Baba Mastnath University, Asthal Bohar, Rohtak
[2]IC College of Home Science, CCS HAU. Hisar
E-mail: [1]mohinderr@gmail.com, [2]goyat_hau@rediffmail.com

Abstract—*The study was conducted in Hisar district of Haryana State during 2015-16 with the objective to study marketing cost, margin and price spread through different marketing channels. Three villages were selected with 25 farmers per village with a total of 75 farmers for the study. Ten commission agents and five processing units were selected for the study. Three major channels were observed during study i.e. channel-I (Producer→ Village trader → Commission agent→ Processor), Channel-II (Producer→ Commission agent→ Processor) and Channel-III (Producer→ Processor). Channel-I was more prevalent in the market and 65.33 per cent farmers were selling their produce through channel-I followed by channel-II (26.67%) and Channel-III (8%). Marketing cost in Channel-I, Channel-II and Channel-III was Rs. 261.01, Rs. 254.14 & Rs. 244.08 respectively, whereas marketing margin in Channel-I, Channel-II and Channel-III were Rs. 154.81, Rs.117.23 and Rs. 34.77 respectively. Total price spread were estimated Rs. 415.81, Rs. 371.36 and Rs. 278.85 in Channel-I, Channel-II and Channel-III respectively. Among all the channels the Channel-I was found most efficient with marketing efficiency of 7.74 followed by Channel-II (8.88) and Channel-III (11.94).*

1. INTRODUCTION

The term 'guar' has been evolved from its common use in India as cattle feed, "gowahaar" (gow means cow and ahaar means feed). Guar (*Cyamopsis tetragonoloba*) is an important cash crop in rainfed, especially in semi-arid and arid regions. It is drought tolerant, arid and semi-arid, multipurpose crop cultivated mainly during *kharif* season and used for extracting gum from seeds, animal fodder from vegetative part and also used as green manure. It is an important source of nutrition to both human beings and animals which are consumed as vegetables and cattle feed, respectively. Being legume crop, its root nodules contain nitrogen fixing bacteria and crop residue when ploughed under soil, it enhance soil fertility and improves yields of succeeding crop.

India contributed 80 per cent of guar production to the total guar production in world followed by Pakistan with 15 per cent and remaining 5 per cent guar was produced in rest of the world.

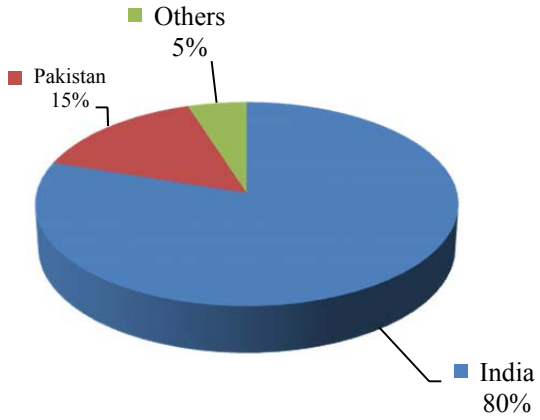

Fig. 1: Per cent of global guar production

In India, Rajasthan (75%) and Haryana (20%) remained major guar producing states followed by Gujarat (3%) others (2%) to the total production of guar crop (Singh, 2014). The share of Rajasthan was 80 per cent in 1991-92 but it has been reduced due to increase in production of some other states like Haryana, Gujarat and Punjab.

In Haryana, Bhiwani, Sirsa, Mahendergarh, Hisar, Fatehabad, Jhajjar and Rewari are main guar growing districts. In year 2011-12, Bhiwani contributed 38.42 per cent Sirsa 26.33 per cent and Hisar contributed 15.43 per cent of guar production in Haryana. These three districts are accounted for 80.17 of guar production. Bhiwani remain on first position and contributed 41.43 per cent in 2012-13 and 37.16 in 2013-14 of total production. Sirsa and Hisar contributed 20.19 per cent

and 16.50 per cent in 2012-13 and 20.44 per cent and 19.94 per cent in year 2013-14, respectively.

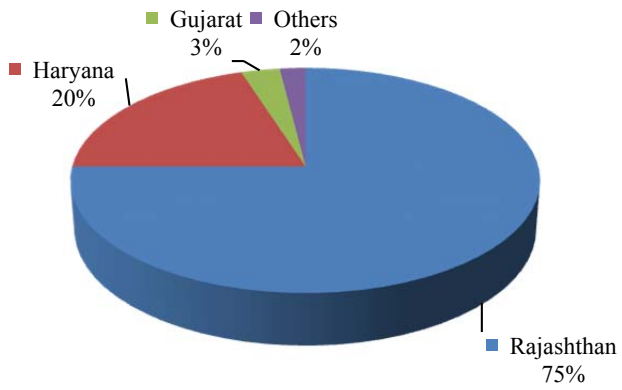

Fig. 2: Per cent guar production in India

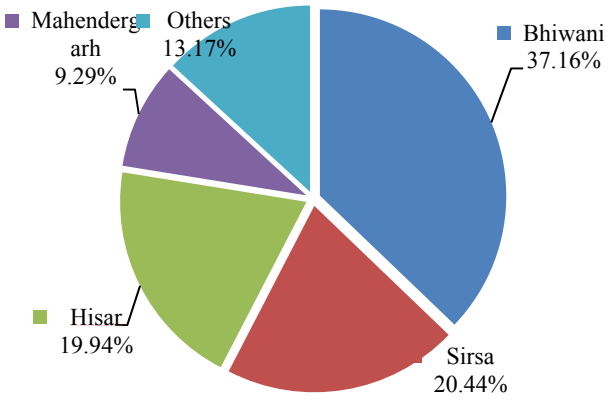

Fig. 3: Per cent guar production in Haryana

Total guar area in 2011-12 was 218400 hectare, in 2012-13, it was 388400 hectare and in 2013-14, the area increased to 481400 hectares. In Haryana, guar is grown in 215000 hectare area and production was reported 290 metric tonnes, which in turn yield of 1350 kg per hectare, which is approximate 2.46 times of Rajasthan (Singh, 2014).

2. MATERIALS AND METHODS

In selected district Hisar, Adampur *Mandi* was selected based on the highest arrival of guar crop among all the mandies for the study of marketing of guar and marketing channels and evaluation of various costs associated with farmers, village traders, commission agents and the processor end. Ten commission agents were randomly selected for the study. Five processing units in the area and three villages were selected on the basis of the recommendations of the marketing committee personals and commission agents having maximum arrival of guar in the concerned *mandi* and the further sale of produce to processing units.

The data from farmers were collected through personal interviews regarding the sale price of guar and the others costs involved in marketing of guar. The traders and commission agents were asked questions related to different marketing costs, wastages, marketing fees, commission and different operational works to be carried on the produce procured from the farmers. The margin and price spread were worked out based on the data generated in different marketing channels. The processors were asked question related to the cost incurred in processing, margin received and sale price of final product.

In order to study the marketing efficiency in all the three channels, Acharya's modified measure was used. (Acharya and Agarwal, 2011)

$$\text{Acharya's Method (MME)} = \frac{\textit{Net price received by producer}}{\textit{Total marketing cost+ total margin of intermediaries}}$$

$$\text{MME} = \frac{FP}{MC+ MM}$$

Where,

MME is modified measure of marketing efficiency

FP is net price received by farmer.

MC is total marketing cost.

MM is total net margins of intermediaries.

Tabular analysis was used to study various aspects of production, marketing and processing of guar. It was used to study the cost incurred in marketing of guar by farmers, the marketing margins, costs and price spread in guar in selected *mandi* by commission agents and processors.

3. RESULTS

Marketing channel and marketing pattern:

The farmers under study were selling their produce through three marketing channels observed in the study as given in Table 1.

Table 1: Marketing channels in Hisar

Marketing channel	Details
Channel-I	Producer→ Village trader → Commission agent→ Processor
Channel-II	Producer→ Commission agent→ Processor
Channel-III	Producer→ Processor

Main marketing channel was found channel-I, through which 65.33 per cent of the farmers were selling their produce,

followed by channel-II (26.67%) and channel-III (8.0%) as given in Table 2.

Table 2: Marketing pattern of guar in Hisar

Marketing channel	No. of farmers	Percentage
Channel-I	49	65.33
Channel-II	20	26.67
Channel-III	6	8.00
Total	**75**	**100**

Cost, margin and price spread in marketing channels of guar in Hisar

Channel-I

The margins of intermediaries were found highest in channel-I. The margin of the village trader was Rs. 37.59, commission agent Rs. 82.45 and processor Rs. 34.77 per quintal of guar in channel-I. The village trader paid a total cost of Rs. 41.58 per quintal for various operations like loading, cleaning and dressing, transportation and wastage. The total cost of commission agent for the marketing of one quintal of guar was Rs. 77.99 including filling and placing the unit on platform, weighing charges, *sutli* charges, stitching charges, loading, unloading charges, market fee, transportation charges, brokerage and Gunny bag charges. The processor paid a cost of Rs. 141.44 per quintal which includes fixed and variable cost. The total cost of this marketing channel was estimated Rs. 261.01 per quintal of guar starting from raw to processed products (Table 3). Total margin of all intermediaries were Rs. 154.81. Total price spread in this channel was Rs.415.81

Channel-II

The margin of commission agent was estimated Rs. 82.46 and processor Rs. 34.77 per quintal of guar. The farmers had to pay a Rs. 39.19 quintal per hectare for marketing of guar. The commission agents paid a Rs. of 73.51 quintal of guar for various operations like weighing charge, sutli charge, bag filling, stitching charges, loading and loading charges, marketing fees, transportation charges, brokerage, gunny bag charges. The processer paid the cost of Rs. 141.44 for processing of one quintal of guar. All these costs were accounted for a total cost of Rs. 254.14 for processing of one quintal of raw guar to processed products

In channel-II the price spread from farmer to commission agent was Rs.155.96 per quintal and it was Rs. 176.21 per quintal from commission agent to processor. The total price spread in channel-II was Rs. 371.36 per quintal of guar (Table 4).

Channel-III

In channel-III, farmers and processors were involved and total cost of Rs. 244.08 per quintal of guar was incurred. Farmers had to born an amount of Rs. 40.16, whereas, the processor had rendered an amount of Rs. 203.92 per quintal of guar. the margin of processor was Rs. 34.77 per quintal of guar.

In channel- III, the price spread was Rs. 278.85 per quintal from farmer to processor and was lowest among all the marketing channels (Table 5).

Table 3: Price spread in guar in channel-I in Hisar.

Sr. N	Particulars	Value (Rs.)
A	Farmer Sale price of guar	3218.67
B	Village Trader	
	Purchase price of guar	3218.67
1	Unloading Charges born by village trader	2.95
2	Cleaning and dressing charges born by village trader	4.78
3	Transportation charges born by village trader	17.76
4	Wastage value	16.09
	Total expenses (sum of 1 to 4)	41.58
	Margin of trader	37.59
	Sale price of guar	3297.85
	Price spread	79.18
C	Commission Agent	
	Purchase price of guar	3270.23
1	Filling and placing the unit on balance/platform	3.04
2	Weighing charge	2.55
3	*Sutli* Charge	1.31
4	Stitching charge	2.42
5	Loading charge	2.93
6	Unloading charge	2.93
7	Market fees (1%)	32.98
8	Transportation charge	10.4
9	Brokerage	3.73
10	Gunny bag charges	15.7
	Total expenses (sum of 1 to 10)	77.99
	Margin of commission agent (2.5%)	82.45
	Sale price of guar	3458.28
	Price spread	160.43
D	Processor	
	Purchase price of guar	3458.28
1	Fixed cost	38.02
2	Variable cost excluding purchase of raw material	103.42
	Total expenses (1+2)	141.44
	Margin	34.77
	Sale price of guar	3634.49
	Price spread	176.21
	Total Price spread	415.81

Table 4: Price spread in guar in channel-II in Hisar

Sr. N	Particulars	Value (Rs.)
A	Farmer	
	Expenses	
1	Unloading Charges	2.64
2	Cleaning and dressing charges	5.3
3	Transportation charges	14.76
4	Wastage value	16.49

	Total expenditure bore by farmer (sum 1 to 4)	39.19
	Price per quintal	3298.25
	Net sale price	3259.06
B	Commission agent	
	Purchase price	3298.25
	Expenses	
1	Filling and placing the unit on balance/platform	3.04
2	Weighing charge	2.55
3	*Sutli* Charge	1.11
4	Stitching charge	2.42
5	Loading charge	2.93
6	Unloading charge	2.93
7	Market fees (1%)	32.98
8	Transportation charge	9.8
9	Brokerage (0.11%)	0.04
10	Gunny bag charges	15.7
	Total expenses (sum of 1 to 10)	73.51
	Margin of commission agent (2.5%)	82.46
	Sale price of guar	3454.21
	Price spread	155.96
C	Processor	
	Purchase price of guar	3454.21
1	Fixed cost	38.02
2	Variable cost excluding purchase of raw material	103.42
	Total expenses (1 + 2)	141.44
	Margin	34.77
	Sale price of guar	3630.42
	Price spread	176.21
	Total price spread	371.36

Table 5: Price spread in guar in channel-III in Hisar

Sr. N.	Particulars	Value (Rs.)
A	Farmer	
	Expenses	
1	Transportation charges	18.29
2	Unloading charges	2.97
3	Wastage value	16.65
4	Cleaning and dressing charges	2.25
	Total expenses (sum 1 to 4)	40.16
	Price per quintal	3330
	Net sale price	3289.84
B	Processor	
	Purchase price of guar	3330
	Expenses	
1	Expenditure incurred by processor before processing (sum i to vii)	62.48
i)	Filling and placing the unit on balance/platform	2.71
ii)	Weighing charge	2.47
iii)	*Sutli* Charge	1.15
iv)	Stitching charge	2.35
v)	Market fees (1%)	33.3
vi)	Loading & Unloading charges	5.25
vii)	Gunny bag charges	15.25
2	Fixed cost	38.02
3	Variable cost in processing excluding purchase of raw material	103.42
	Total expenses (1+2+3)	203.92
	Margin	34.77
	Sale price of processor	3568.69
	Price spread	238.69
	Total price spread	278.85

Marketing efficiency

When the marketing channels were compared for their marketing efficiency in different channels in district Hisar, it was found that marketing channel-III (farmer to processor) was found most efficient with efficiency 11.94 as followed by Channel-II (8.88) and channel-I (7.74). Although the cost incurred in all the three marketing channels were nearly same but the margins made a real difference which led to high marketing efficiency in channel-III, margins was Rs. 34.77 in channel-III, whereas in channel-I, it was Rs. 154.81 and in channel-II it was Rs. 117.23 (Table 6)

Table 6: Marketing efficiency of different channels in Hisar

Marketing channel	Price received by the farmers (FP) (Rs./q)	Marketing cost (MC) Rs./q	Margins (MM) Rs./q)	Marketing efficiency (MME)= (FP)/ (MC)+ (MM)
Channel-I	3218.67	261.01	154.81	7.74
Channel-II	3298.25	254.14	117.23	8.88
Channel-III	3330	244.08	34.77	11.94

4. DISCUSSION

The three marketing channels were prevailing in the market and channel-I is most prominent channel in-spite of large number of intermediaries. The marketing costs, margins and prices spread is found highest in channel-I and compare to channel-II and channel-III. The total price spread was 49.12 per cent higher in channel-I over channel-III and 33.18 per cent higher in channel-II over channel-III. The marketing efficiency was in channel-III is found highest among all the three marketing channels.

5. CONCLUSION

In marketing of guar through all the marketing channels, the channel-III was found most efficient where farmer is directly selling his produce to processor. In channel-I, the village trader, commission agent and processor were involved and in channel-II, the commission agent and processor were involved. Total price spread was found highest (Rs. 4.15.18) in channel-I due to higher number of intermediaries where as in channel-II it was Rs.371.36 and in channel-III it was Rs.278.85. Channel-III was found most efficient as the cost and margins are lowest which led to lowest price spread and

higher market efficiency of 11.94 followed by channel-II (8.88) and channel-III (7.74).

REFERENCES

[1] Acharya, S.S. & Agarwal, N.L. (2011). Market Integration, Efficiency, Costs, Margins and Price Spread. *Agricultural Marketing in India.* 440-443.

[2] Banafar, K.N.S.; Thakur, M.K.; Gauraha, A.K. 2006. Marketing of mustard in Surgaja district of Chhatisgarh, *Agricultural marketing*:15-19.

[3] NIAM (2013), "Guar Industry Outlook 2015", Report, *National Institute of Agricultural Marketing (NIAM) and National Commodity & Derivatives Exchange Limited (NCDX)*, November.

[4] NRAA, 2014, "Potential of Rainfed Guar (Cluster beans) Cultivation, Processing and Export in India", Policy paper No.3, *National Rainfed Area Authority,* NASC Complex. DPS Marg, New Delhi-110012, India: 109p.

[5] Sharma, P. & Gummagolmath, K.C. (2012). Reforming Industry in India: Issues and Strategies. *Agric. Econ. Res. Rev.* **25**(1), 37-48.

[6] Singh, Kumar, S. (2013). Emerging trends in guar farming processing and Application. Paper presented at *Guar International Conference* December 6-7 2013, Jaipur India

[7] Singh, S.K. (2014). An analysis of guar crop in India. *Grain Report.* USDA Foreign *Agriculture Service*. Grain Report No. 4035.