A Study on Marketing of Cucumber and Post Harvest Management in Prayagraj District of Uttar Pradesh

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Abstract:- The Present study entitled **"***a study on marketing of cucumber and post harvest management in prayagraj district of uttar pradesh***."** Was conducted in the year 2022- 2023 with a sample of 120 respondents. In the present study it has been revealed the maximum number of respondents under farm size category respondents having are under small farmer, followed by medium farmer, Semi medium farmer, marginal farmer and large farmer. Under age category maximum respondents are under young age group, followed by medium age group and old age group. Under education category 78 respondents were illiterate out of total sample and 42 were literate under various category. In gender category it has been noticed that majorly the men were involved in the farming as compared to female out of total selected sample. In caste category maximum respondents were under general caste category followed by OBC caste category, and SC/ST category. In family type category it has been noticed that maximum respondents were living in nuclear family followed by respondents living in joint family. In religion category it has been found maximum of the respondents were Hindu, followed by Muslim and Christian. In objective two In channel preference of buying and selling of cucumber it was revealed that among three channel majority of respondents were preferring channel -3 followed by channel 2 and channel 1. In marketing of cucumber through channel 1 the marketing margin is Rs.520 ,marketing efficiency is 4.35% and Price spread is Rs 31. In marketing of cucumber through channel 2 the marketing margin is Rs.833.25 ,marketing efficiency is 3.11% and Price spread is Rs 389.25. In marketing of cucumber through channel 3 the marketing margin is Rs.1019, marketing efficiency is 2.73% and Price spread is Rs 697.35.

Keywords:- *Cucumber, Marketing Channels, Price Spread, Marketing Efficiency, Marketing Margin.*

I. INTRODUCTION

Cucurbits are most commonly used as vegetables and fruits. They are highly rich in vitamins A, which helps in wound healing by promoting the body's natural inflammatory response and activating collagen synthesis. Cucurbitacin's, triterpenes, sterols, and alkaloids are common bioactive compounds present in cucurbit fruits (including seeds). Cucurbitacin's are a group of bitter triterpenes found mostly in Cucurbitaceae seeds. A number of cucurbits can be grown in river beds at a minimal cost. As per the survey, 60% of total area under cucurbits cultivation is under riverbed cultivation. During the summer season, about 75-80% of total cucurbits production is grown on dry land that is available in the market between February and June. The Ganga, Yamuna, Saraswathi, Narmada, Sutlej, Krishna, Kaveri, Godavari, Mahanadi, Sabarmati, Gomati and Brahmaputra are some of the major river belts suitable for cucurbit cultivation. Cucumber and bitter gourd are commonly grown by farmers in 10 km radius of Kaushambi district.

II. RESEARCH METHODOLOGY

➢ *Selection of District:*
There are 75 District and 18 division in Uttar Pradesh state. Out of these Prayagraj district of Uttar Pradesh was selected purposively and this there are four subdivision (Prayagraj, Pratapgarh, Prayagraj and Fatehpur) for the present study on the basisof maximum area under cucumber cultivation.

➢ *Selection of Block:*
There are 23 block in the district. Out of these Saidabad was selected purposively for the study. The agro condition of the block is suitable for the Cucumber Cultivation.

➢ *Selection of Villages:*
There are total 161 village in Saidabad block obtained from the block development office. Thereafter these villages was arranged in order on the basis of area of land holding. Thus out of total villages 5% villages was selected randomly for the present study.

➢ *Selection of Respondents:*
From the selected village list of all cucumber cultivating farmers was obtained from the block development office in each selected village. Ascending order on the basis of size of their landholding the selection of cultivators from families was listed and 10% farmers was randomly selected from all of the village and then the selected farmers was classified into five sizes of groups.

Table 1: Selection of Respondents:

District	Block	Villages	Respondents					Total
			Marginal	**Small**	**Semi-medium**	**Medium**	**Large**	
Prayagraj	Saidabad	Ajehara	2	5	3	4	2	**16**
		Akabarpur Miyanpatti	2	5	4	5	2	**18**
		Akabarpur Mugarason	2	4	3	4	1	**14**
		Amora	3	8	4	5	3	**23**
		Anjana	2	7	5	5	1	**20**
		Antaraura Ta. Basagit	1	4	3	3	1	**12**
		Ara Kalan	2	3	2	2	1	**10**
		Avarata	1	1	2	2	1	**7**
TOTAL			**15**	**37**	**26**	**30**	**12**	**120**

- **Analytical Tools:**

Standard Deviation:

$$\sigma = \sqrt{\frac{\sum (x_i - \mu)^2}{N}}$$

Mean:

$$m = \frac{\text{sum of the terms}}{\text{number of terms}}$$

Marketing Efficiency

Consumer paid price
Total marketing cost + Total marketing margin

Market Margin:

Price Spread:

Price Spread = (Consumer price – Net Price of Producer)   x 100

Marketing Margin = Product price - raw material

Consumer price

$$\text{Percent position} = \frac{100\,(R_{ij}-0.5)}{N_j}$$

Garrett Ranking:

III. RESULT AND DISCUSSION

Table 2: Distribution of respondents based on their preference on marketing channels.

S. No.	CHANNEL	Respondents number	Respondents					
			marginal	small	Semi medium	medium	large	Percentage
1	**CHANNEL- 1**	13	4	2	3	2	2	10.83%
2	**CHANNEL -2**	37	5	10	9	10	3	30.83%
3	**CHANNEL - 3**	70	6	25	14	18	7	58.34%
Total		**120**	**15**	**37**	**26**	**30**	**12**	**100%**

Table 2. Reveals during the study that among 120 sample 13 (10.84%) were preferring channel 1 to buy and sell cucumber through channel 1, followed by 37 (30.83%) respondents were preferring to buy or sell respondents cucumber through channel 2 and left 70 (58.34%) respondents were preferring channel -3 to buy or sell cucumber in the study area.

Table 3: Reveals the Price spread, Marketing Efficiency, Marketing Margin in marketing of cucumber through channel 1 in the study area.

CHANNEL – 1 : PRODUCER → CONSUMER.

Sr. No	Particulars	Cucumber
		Value in Rs./quintal.
1.	Produce sale price to Consumer	2400
2	Marketing cost incurred by producer	
I	Packaging cost	2
II	Packaging material cost	5
III	Loading and Unloading charge	7
IV	Weighing charge	5
V	Labour Cost	5
VI	Miscellaneous charges	7
	Total Marketing Cost	**31**
	Net price received by producer	**2369**
A	**Margin of the producer**	**520**
B	**Marketing efficiency**	**4.35%**
C	**Price Spread**	**31**

Table 3. Reveals that in marketing price of 1 quintal bag of cucumber to consumer through channel 1 is Rs2400, the marketing cost incurred by the producer of cucumber in marketing of cucumber in selling of 1 quintal cucumber bag is Rs.31, total marketing margin is Rs520, and marketing efficiency of 1 quintal bag of cucumber is 4.35% and price spread seen in marketing of cucumber from channel 1 is Rs.31.

Table 4. Reveals the Price spread, Marketing Efficiency, Marketing Margin in marketing of cucumber through channel 2 in the study area.

CHANNEL 2: PRODUCER →RETAILER →CONSUMER.

S. No	Particulars	Cucumber
		Value in Rs. / Quintal
1.	Producer sale price to retailer	2355
2.	Cost incurred by the producer	
i	Packaging cost	2
ii	Packaging material cost	5
iii	Loading and Unloading charge	7
iv	Weighing charge	5
v	Labour Cost	5
vi	Miscellaneous charges	7
vii	Transportation cost	5
3	Total cost incurred by producer	36
4	**Margin of Producer**	**480**
5	**Retailer sale price to Consumer**	**2708.25**
6	**Margin of Retailer**	**353.25**
7	Net price received by producer	2319
8	**Total Marketing cost**	36
A	**Total Market margin**	**833.25**
B	**Marketing Efficiency**	**3.11%**
C	**Price Spread**	**389.25**

Table 4. Reveals that the marketing price Cucumber 1 quintal from producer to Retailer is Rs 2355. The marketing cost incurred by the producer in marketing of 1 quintal of cucumber to retailer is Rs 36, with profit margin of producer on 1 quintal bag of cucumber is Rs 480. Net price received by producer is Rs. 2319. Price at which retailer sell 1 quintal bag of cucumber to consumer is Rs 2708.25, with profit margin of Rs 480 per 1 quintal bag of cucumber. Eventually, the Marketing Efficiency of cucumber 1 quintal bag was seen to be 3.11% per 1 quintal bag of cucumber through channel 2, total market margin in selling 1

quintal bag to consumer through channel 2 is Rs. 833.25, total marketing cost incurred in selling of 1 quintal of cucumber bag through channel 2 is Rs. 36 and the price spread seen in marketing of 1 quintal bag through channel 2 is Rs 389.25

Table 5. Price spread, Marketing Efficiency, Marketing Margin in marketing of cucumber through channel 3 in the study area.
Producer – Wholesaler – Retailer - Consumer

S. No	Particulars	Cucumber
		Value in Rs. / Quintal
1.	Producer sale price to Wholesaler	2290
2	Marketing cost incurred by producer	36
3	Margin of Producer	410
4.	Cost incurred by the Wholesaler	
I	Loading and unloading charges	3
Ii	Carriage up to shop	4
iii	Weighing charges	3
Iv	Transportation charges	6
V	Labour cost	3
vi	Miscellaneous charges	7
#	**Total cost (i-vii)**	**25**
5	**Wholesaler price to Retailer**	**2658.50**
6	**Margin of Wholesaler**	**343.50**
7	**Retailer price to Consumer**	**2951.35**
8	**Margin of Retailer**	**265.85**
9	Net price received by producer	2254
10	**Total Marketing cost**	61
A	**Total Market margin**	**1019.35**
B	**Marketing efficiency**	**2.73%**
C	**Price Spread**	**697.35**

Table 5. Reveals that the marketing price Cucumber 1 quintal from producer to wholesaler is Rs 2290. The marketing cost incurred by the producer in marketing of 1 quintal of cucumber to retailer is Rs 36, with profit margin of producer on 1 quintal bag of cucumber is Rs 410. Net price received by producer is Rs. 2254. The marketing price of 1 quintal bag of cucumber supplied by the wholesaler to retailer is Rs. 2658.50 the cost of marketing incurred by cucumber wholesaler is Rs 25, with Rs.343.50 as profit per 1 quintal cucumber bag. Retailer selling price of 1 quintal cucumber bag to consumer is Rs.2951.35, with the profit margin of Rs. 265.85 per 1 quintal cucumber bag. Total marketing cost incurred in marketing of 1 quintal cucumber bag through channel 3 is Rs 61 Total market margin in marketing of 1 quintal cucumber bag through channel 3 is Rs 1019.35. Eventually, the Marketing Efficiency of 1 quintal cucumber bag was seen to be 2.73% 1 quintal cucumber bag through channel 3 and price spread seen while marketing of 1 quintal cucumber bag is Rs.697.35 from channel 3.

IV. CONCLUSION

It may be concluded from the study that there is an immense scope for expansion of area and production of cucumber in Saidabad block as well as in other suitable part of Prayagraj district. The cost of cultivation of cucumber is higher but due to good demand in market, the return are also very good. Producers can get a net profit on marketing of cucumber through channel 1 is Rs.520 and Rs.480, channel - 2 and channel 3 Rs.343 respectively.

The study pertains to the marketing of cucumber in Prayagraj district of Uttar Pradesh with the main objective of the studying of preferred marketing channel in marketing of cucumber and evaluation of market margin, marketing efficiency and price spread in marketing of Cucumber. Since, cucumber is majorly considered as an export oriented crop with major people using it for salad , most of the respondents were marketing cucumber through channel 3 and the price spread is greater in channel 3 as compared to channel 1 respectively.

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