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Disposal Pattern of Vegetables in District Varanasi

Pavan Kumar Singh[1], Bhartendu Yadav[2*], Harendra Pratap Singh Choudri[1], Ajeet Kumar[1] and G. P. Singh[1]

[1]Acharya Narendra Deva University of Agriculture and Technology, Ayodhya, India.
[2]Chandra Shekhar Azad University of Agriculture & Technology, Kanpur, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

To analyze the disposal pattern of vegetables in district Varanasi, a purposive cum random sampling technique was used for the selection of district, blocks, villages and the respondents. From the study it is concluded that total disposal of cauliflower was 38.85 quintals, of tomato was 140.22 quintals, brinjal was 38.85 quintals and pea was 11.84 quintals. Maximum disposal of all the selected vegetables was found maximum through the channel III in case of both marginal and small farms. It shows the efficient involvement of the intermediaries in the marketing procedure.

Keywords: Disposal pattern; pea; brinjal; cauliflower; tomato.

1. INTRODUCTION

Vegetable plays an important role in agriculture and industrial economy. Vegetables are short duration crops with high yield per unit area, economically viable and provide nutritional security. India is the world's largest producer of vegetables but still a large gap exists between per capita demand and supply. In 2010-11, total value of vegetable exports from India were accounted for 2706.97 crores, which account for about 2.25% of total agricultural exports and

**Corresponding author: E-mail: yadvbhartendu@gmail.com;*

0.23% of India's total export (*statista.com, apeda.gov.in*).

Efficient marketing of green vegetables is equally important as its production, because marketing is the only way to carry the vegetables from its place of production to the ultimate consumer, [1]. Since it is highly perishable thus the process of its marketing is quite different than other farm produce. For improving the marketing of vegetables, intermediaries should be less, subsidy, may be given on seeds pure seeds may be made available to farmers market infrastructure should be improved and storage& transportation may be strengthened, [2]. Marketing efficiency of the initial level markets should be improved to change the existing scenario, [3]. Profits are also not fetched efficiently by the producers due to the monopoly of traders or commission agents, [4].

Marketing increases the different forms of utility of the vegetables and also creates employment for a considerable part of society [5,6] keeping in view the increased production of vegetables and its export potential and importance of the subjects as discussed above it became essential to improve and study the disposal pattern, supply chain of vegetable followed by its producers, considering those facts, a study was conducted to analyze thedisposal pattern of vegetables in district Varanasi.

2. METHODOLOGY

The purposive cum random sampling technique was used for the research technique to achieve the desired objectives. The district Varanasi was selected purposively to avoid the operational inconvenience of the investigator.Out of eight blocks of selected district, one block namely, Pindra having highest area under vegetables crop was selected purposively.A list of all the villages falling under selected block was prepared along with area covered under vegetables crop thereafter; five villages were selected randomly from the list.A separate list of vegetables growers of selected five villages was prepared along with their size of holdings. Thus, the farm holding categorized into two size groups i.e. (1) Marginal (below 1.0 hectare) and (2) Small (1.0 to 2.0 ha.) from this list a sample of hundred respondents were selected following the proportionate random sampling technique.Shivpur, Harahua, Pindra, Rajpur, Bhojubeer and Chandua, six mandi markets were selected where most of the vegetables of study area are being disposed-off as such leading these markets were selected for the study of marketing aspects. A sizeable number of intermediaries were interviewed for assessing the imperfections of vegetables marketing system. The sample markets were well connected with road facilitating smooth transportation of the produce from the study area.The secondary data were collected from published/ unpublished record of district and block headquarters, books, journals; periodicals etc. The primary data were collected through personal interview method on well-structured schedule.

2.1 Analytical Tools

Tabular analysis was used to compare the different parameters among marginal and small size groups of the farmers. Family composition, investment pattern etc. were computed and presented in tabular forms. In this computation weighted average, arithmetic mean and percentage were calculated to interpret the result.

1. Weighted average

$$\mathrm{W.A.} = \frac{\sum \mathrm{W_i X_i}}{\sum \mathrm{W_i}}$$

where,

W. A. = Weighted average
Xi = Variable
Wi = Weight of variable

2. Arithmetic mean

$$\bar{X} = \frac{\sum X}{N}$$

3. Percentage

$$\frac{Part\ value}{Total\ value} \times 100$$

3. RESULTS AND DISCUSSION

3.1 Disposal Pattern of Cauliflower Through Different Channels of Distribution

Disposal of cauliflower through various channels, as

- producer- consumer,
- producer- retailer –consumer
- producer- wholesaler-retailer –consumer is given Table 1.

This table indicates that the maximum sale of cauliflower done through channel-III (18.25 qtl.) followed by channel-II (6.47 qtl.) and channel-I (3.86 qtl.) on marginal farms. In respect to marginal farmers, the maximum sale of cauliflower rooted through channel-III (12.71 qtl.), followed by channel-II (2.75 qtl.) and channel-I (1.32 qtl.). In case of small farms, maximum sale of cauliflower was also done in same manner like marginal farms i.e., through channel-III (15.54 qtl.) followed by channel-II (3.72 qtl.) and channel-I (2.54 qtl.), respectively.

3.2 Disposal Pattern of Tomato Through Different Channels of Distribution

Disposal of tomato through various channels, as

- producer- consumer,
- producer- retailer –consumer and
- producer- wholesaler-retailer –consumer is given Table 2.

This table indicates that the maximum sale of tomato done through channel-III (116.28 qtl.) followed by channel-II (16.67 qtl.) and channel-I (7.27 qtl.) on marginal farms. In respect to marginal farmers, the maximum sale of tomato rooted through channel-III(58.46 qtl.), followed by channel-II (6.49 qtl.) and channel-I (3.00 q.). In case of small farms, maximum sale of tomato was also done in same manner like marginal farms i.e., through channel-III (57.82 qtl.) followed by channel-II (10.18 qtl.) and channel-I (4.27 qtl.).

3.3 Disposal Pattern of Brinjal Through Different Channels of Distribution

Disposal of brinjal through various channels, as

- producer- consumer,
- producer- retailer –consumer and
- producer- wholesaler-retailer –consumer is given Table 3.

This table indicates that the maximum sale of brinjal done through channel-III (147.53 qtl.) followed by channel-II (26.41 qtl.) and channel-I (11.16 qtl.) on marginal farms. In respect to marginal farmers, the maximum sale of brinjal rooted through channel-III (54.17 qtl.), followed by channel-II (5.68 qtl.) and channel-I (2.35 qtl.). In case of small farms, maximum sale of brinjal was also done in same manner like marginal farms i.e., through channel-III (93.36 qtl.) followed by channel-II (20.73 qtl.) and channel-I (8.81 qtl.), respectively.

Table 1. Disposal pattern of cauliflower through different channels on different size group of farms (qtl.)

S. No.	Size of group of farms	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	1.32	2.75	12.71	16.78
2.	Small	2.54	3.72	15.54	21.80
	Total	3.86	6.47	28.25	38.58

Table 2. Pattern of disposal pattern of tomato through different channel on different size group of farms (qtl.)

S. No.	Size of group of farms	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	3.00	6.49	58.46	67.95
2.	Small	4.27	10.18	57.82	72.27
	Total	7.27	16.67	116.28	140.22

Table 3. Disposal of brinjal through different channel on different size group of farms (qtl.)

S. No.	Size of group of farms	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	2.35	5.68	54.17	62.20
2.	Small	8.81	20.73	93.36	122.90
	Total	11.16	26.41	147.53	185.10

Table 4. Disposal pattern of Pea through different channel on different size group of farms (qtl.)

S. No.	Size of group of farms	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	0.53	0.86	3.23	4.62
2.	Small	0.81	1.50	4.91	7.22
	Total	1.34	2.36	8.14	11.84

3.4 Disposal Pattern of Pea Through Different Channels of Distribution

Disposal of pea through various channels, as

- producer- consumer,
- producer- retailer –consumer and
- producer- wholesaler-retailer –consumer is given Table 4.

This table indicates that the maximum sale of pea done through channel-III
(8.14 qtl.) followed by channel-II (2.36 qtl.) and channel-I (1.34 qtl.) on marginal farms. In respect to marginal farmers, the maximum sale of pea rooted through channel-III (3.23 qtl.), followed by channel-II (0.86 qtl.) and channel-I (0.53 qtl.). In case of small farms, maximum sale of pea was also done in same manner like marginal farms i.e., through channel-III (4.91 q.) followed by channel-II (1.50 q.) and channel-I (0.81 q.), respectively.

4. CONCLUSION

The overall study reveals that the efficiency of the market in the Varanasi have the inclusion of the market intermediaries. They play a major role in the disposal of the produce in the study area.

- Total disposal of cauliflower was 38.85 quintals out of which disposal of cauliflower by Channel-I, Channel-II, Channel-III, came to 3.86, 6.47 and 28.25 quintals, respectively.
- Total disposal of tomato was 140.22 quintals out of which disposal of tomato by Channel-I, Channel-II, Channel-III, came to 7.27, 16.67 and 116.28 quintals, respectively.
- Total disposal of brinjal was 38.85 quintals out of which disposal of tomato by Channel-I, Channel-II, Channel-III, came to 11.16, 26.41 and 147.53 quintals, respectively.
- Total disposal of pea was 11.84 quintals out of which disposal of pea by Channel-I, Channel-II, Channel-III, came to 1.34, 2.36 and 8.14 quintals, respectively.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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