MARKETING OF VEGETABLES IN HIMACHAL PRADESH

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Abstract

Vegetable marketing is different from marketing of other agricultural commodities because of their high perish ability, concentration of trade in a few hands and a large number of producers. The produce has to be carefully handled for transportation, assembling and packaging. The cultivation of vegetables is most suitable in a country like ours with preponderance of small land holding, varied climatic conditions and surplus family labour. There is need to bring improvement in the marketing efficiency for vegetable marketing. The efforts made by the government to improve the marketing system could improve the efficiency and help in increasing the producer's share in the consumer's rupee in the case of Food grains, oilseeds, and fiber crops to a great extent but very little has been done for improving the marketing efficiency in the case of fruits, vegetables, flowers, and other perishable commodities.

Introduction

India is the second largest producer of vegetables (Next to China) in the world with a production of 40 million tonnes from four million hectares of land area. This high level of production can supply only 120 gms of vegetables per capita per day as against the recommended dietary allowance of 200 gms vegetables per capita per day. The study of vegetable marketing in terms of marketing channels, price spread in Jaipur district of Rajasthan indicates that farmers mostly adopt channel 2 in marketing of their surplus produce having mashakhores as one of the intermediaries. Farmers transport their surplus to Jaipur mandi through road by hiring private truck which ply regularly on this route.

Objectives

Keeping in view the above facts, the present study has been designed to study the following objectives:

- To work out the post-harvest losses during storage, transportation and marketing of main vegetable crops,
- To quantify the factors affecting marketed surplus of these crops, and
- To study the problems of cultivators during storage, transportation and marketing of these crops.

Methodology

Solan district of Himachal Pradesh was purposively selected since it ranks first in area under vegetable crops in state. Out of five community development blocks in the district, two blocks viz.,

Solan and Kandaghat were randomly selected. A sample of 60 farmers was proportionally allocated between the two blocks.

To meet the various objectives simple averages and percentages were calculated and discussed. For second objectives, linear regression model of the following form was used.

$$Y_i = b_0 + b_1 PRD_i + b_2 PCL_i + b_3 D_i + b_4 D_2$$

Where

Y_i	=	Marketed surplus of ith vegetable in quintals per farm.
PRD_1	=	Total Production of ith vegetable in quintals per farm.
PCL_i	=	Per cent losses of ith crop
D_i	=	Dummy value for education. Value 1 was assigned to education above primary upto matric and '0' otherwise.
D_2	=	Dummy variable for education Value 1 was assigned to education above matric and '0' otherwise.

Results and Discussion

The cropping pattern of vegetable crop has been presented in table1. Tomato and peas are the main vegetables of the study area which accounted for about 35 percent and 28 percent of the total area under vegetable crop. The highest area under tomato was mainly because of its profitability. Among other vegetable cauliflower for seed was the main crop. It did not pick up due to poor attention paid by National Seed Corporation and other private agencies

Keeping quality of vegetables depends, to a greater extent, on right stage of picking and the care taken during picking. It is a well known fact that overripned and injured fruits/pods deteriorate at a much faster rate than those picked carefully at proper stage. During survey it was found that the antire vegetable crop did not attain maturity at the same time. Therefore, picking was done in stages. The number of pickings in any particular vegetable were not specific and varied from vegetable to vegetable. The maximum pickings were found in tomato (15-20) followed capsicum (5-7). About 3-5 pickings were required for beans and peas.

The production of vegetable crop has increased spectacularly, primarily due to the development of new production technologies, however, growth is constrained by post-harvest losses. The losses in the vegetable crops have been studied and presented in Table2. It can be seen from table that about 10 quintals of tomato is being lost under different operations. The minimum losses were found to be in case of beans. The highest losses were found to be in case of assembling from field to stores. Peas were found to be most severely affected. The insect-pests and diseases were the most important cause of losses. The losses during transportation were about 10 per cent for peas and beans and more than 21 per cent for tomato. About 18 per cent losses were found during grading and packing. The main reasons for this may be attributed to over ripening, breakage of fruit, small size and mixture of varieties. Since tomatoes were carefully packed and graded, the losses due to the rejection by commission agent were minimum in this case. The deduction by commission agent was minimum in this case. The deduction by commission agents ranged between about 8 percent in tomato and 13 percent for beans and peas while these were below fifteen per cent for capsicum.

The results reveal that total production (PRD) was found to be positively related with marketed surplus. The per cent losses during assembling to marketing were also found to be an important factor affecting marketed surplus of all the crops. This is because of the fact that education had no role to play in enhancing the marketed surplus of the crops. This is because of the fact that marketed surplus primarily depended on economic considerations, total production etc., which did not vary with the level of education as even illiterate farmers kept contact with the extension workers and progressive farmers. Secondly, the market information was not available which could be studied for taking marketing decisions. Thirdly the perish ability of the crop was important even for distress sale. From the foregoing analysis it can be seen that for increasing marketed surplus of vegetable crops total production needs to be enhanced and storage and transit losses need to be minimized.

Conclusions

The study shows that the per cent losses were highest during assembling and transportation for tomato and capsicum whereas assembling and market operations caused major losses for beans and peas. Since tomato and capsicum are to be transported to distant place there is need to educate growers to have their own trucks/vans either on cooperative basis or Panchayat wise. The government should ensure better transportation net work. It will be of significant importance to growers if agro-based small scale industries using these vegetable crops as raw material are established in the study area. This will not only pay remunerative prices but also help minimizing post harvest losses. For peas and beans there is no regulated market which is must in the present set up. The result further show that increased production with minimum losses are the important factors for increasing marketed surplus. Further, costly wooden boxes, time consuming manual grading, distant markets, high transportation charges, malpractices in the market and lack of market information were the major problems. It is thus suggested that alternative to wooden boxes at commercial levels needs to be thoroughly investigated. Village cooperatives should be established for timely disposal of produce. The market information should be announced through mass media like radio/TV and also through pamphlets.

Table 1 Area Production and Productivity of Selected Vegetable Crops in the Study Area, 1989-90

Crop	Area(Per Cent)	Production (Qts)	Productivity (Qts/ha)
Tomato	35.05	78.07	284.93
Capsicum	10.82	11.65	138.69
Beans	17.48	9.84	71.64
Peas	28.35	15.11	66.07
Other Vegetables	8.38	----	---

Table 2 Post-Harvest Losses during Storage, Transportation and Marketing of Main Vegetable Crops in Solan District of H.P

S. No.	Particulars	Tomato	capsicum	Beans	Peas
A	**During Assembling**				
	1) Non-availability of labour	2.0	0.88	---	5.00
	2)Climatic conditions	7.51	7.90	9.83	7.50
	3)Insect-pest	24.02	29.92	27.87	30.00

	4)Transportation	6.71	7.02	8.20	7.50
	5)Short notice to transportation	0.80	1.75	---	---
	6)Sub-Total	41.04	47.37	45.90	50.00
B	**During Grading and Packing**				
	1)Quantity discarded	16.42	15.79	11.48	8.75
	2)Non-availability of packing material	1.20	--	---	--
	3)Sub-Total	17.62	15.79	11.48	8.75
C.	**Transportation**				
	1)Breakage of boxes	10.61	12.28	--	--
	2)Loading/unloading	5.51	6.41		
	3)Road blockage/mishappening with vehicle	6.00	3.51	--	--
	4)Sub-Total	22.12	21.93	9.84	10.00
D.	**Losses in the market**				
	1)Space problem for unloading	1.40	2.62	--	--
	2)Produce rejected by agents	2.00	--	19.67	20.00
	3)delay in auction	8.01	4.15	--	--
	4)Other deductions	7.81	8.14		11.25
	5)Sub-Total	19.22	14.91	32.78	31.25
E.	**Grand Total**	**9.99**	**1.14**	**0.61**	**0.80**

Table 3 Factors Affecting Marketed Surplus of Main Off-Season Vegetable Crops in Solan District of H.P

S. No	Regression Coefficients	Tomato	Capsicum	Beans	Peas
1	Intercept	7.586	0.886	-0.452	0.261
2	Total production(X_1)	0.871**	0.901**	0.935**	0.936**
3	Per cent losses(X_2)	-0.771**	-0.129**	-0.032	-0.115*
4	Dummy variable(D_1)	1.206	-0.079	0.128	0.003
5	Dummy variable(D_2)	0.527	-0.273	0.145	-0.103
6	R^{-2}	0.998*	0.996**	0.994**	0.998**

*Significant at 5 per cent level of significance.

**Significant at 1 per cent level of significance.

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