

Value addition of potatoes and chillies by farmers of Jalandhar district of Punjab

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ABSTRACT

India is the second largest producer of vegetables in the world. The total production is about 78.2 million tones of vegetables. It is estimated that every year vegetables worth about Rs.1500 crores is wasted. This is due to inadequate post harvest processing facilities in the country. Potato is one of the four major crops of the world. Potato is the king of vegetables and a wholesome food containing carbohydrates, proteins, minerals and vitamins. Potato is very strategic crop from export point of view in our country. Indian potato meets the international quality in terms of disease, freeness, shape, size, skin, colour etc. Chilli is the second vegetable which has a maximum area as compared to other vegetable in the Punjab. Chilli is highly perishable in nature. It requires more attention towards harvesting, storing and transporting. The net returns from the produce can be increase through value addition. This study was conducted in the purposively selected Jalandhar district of Punjab. Four blocks having maximum area under potatoes and chillies were selected purposively for the study. A sample of 75 potato and 75 chilli growers was selected by using probability proportion to size method. About 83.00 per cent of the potato growers were aware about sorting whereas 98.67 per cent of them were aware about grading of potatoes. All the respondents were aware that pickles and sauce are the processed products of chilli. All the potato growers also agreed that value addition adds to profit of farmers and is the need of the day. Maximum number of respondents of both categories (chilli and potato growers) reported lack of technical knowledge non availability of equipments and their high cost, non availability of credit, high cost of starting of processing unit and lack of good storage facilities as the major reason for not opting for value addition.

Key words : Constraints, Suggestion *Rabi* jowar

INTRODUCTION

India is the second largest producer of vegetables in the world. This is due to inadequate post harvest processing facilities in the country. Potato is one of the four major crops of the world. Potato is the king of vegetables and a wholesome food containing carbohydrates, proteins, minerals and vitamins. It is very strategic crop from export point of view in our country. Indian potato meets the international quality in terms of disease freeness, shape, size, skin, colour etc. the potato is processed to give it more economic value (Marwaha and Sandhu, 2003). Potato chips are one of the many processed food products popular all over India and the world (Singh, 2002). A processed potato is of more economic value than the raw, unprocessed one; the increased economic value has a positive effect – the farmer gets a better price for his potato crops due to increased demand, the processing company squeezes more profit margins from a better quality processed potato food product. Among processed potato food products, potato chips and French fries are the most commercially successful. Most of the potato growers are not aware about the methods, processes used to add value to this crops and due to this large amount of produce is wasted. There is a strong need for creating awareness, imparting knowledge and skills and motivating the farmers to increase their income through the adoption of value

addition methods. Value addition is an important technology, which increases shelf-life of storage, nutritional value and market price of produce. Similarly, chilli is the second vegetable which has a maximum area as compared to other vegetables in the Punjab. India is the major producer, exporter and consumer of chillies.

Chilli is also highly perishable in nature. It requires more attention towards harvesting, storing and transporting. Most of the growers sell their fresh crop in the market as it is used by the consumers as green as well as a dry form. The net returns from the produce can be increase through value addition. Keeping this in view the present study was conducted to know the value addition of potatoes and chillies among the farmers of Jalandhar district of Punjab.

MATERIALS AND METHODS

The study was conducted in the purposively selected Jalandhar district of Punjab. Four blocks having maximum area under potato and chilli were selected purposively for the study. The lists of vegetable growers with minimum of half acre area under cultivation of potato and chilli in selected blocks were procured and a sample of 75 potato and 75 chilli growers was selected by using probability proportion to size method. An interview schedule was prepared for data collection from potato and chilli growers. Data were collected by interviewing the respondents.

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RESULTS AND DISCUSSION

The findings of the study along with relevant discussion are given below:

Awareness of respondents about different methods of value addition to potatoes:

The data given in Table 1 reveals that about 83.00 per cent of the potato growers were aware about sorting whereas 98.67 per cent of them were aware about grading.

All the respondents were aware about that potato can be processed to make potato chips and samosas to add value to the produce whereas 72.00 per cent were aware about potato pakoras (Table 2).

None of the respondents were aware about the equipments used for value addition except potato slicer (26.67%) and weight sorter (22.58%). These findings are in line with those of Prasad (2005) who reported that the respondents were aware about potato chips and potato pakoras.

Reasons for not going for value addition:

Value addition is a complex process which involves knowledge of various products, method of preparing and machinery / equipments used. It is evident from the Table 3 that high cost of equipment, lack of knowledge about processing, packing, equipments used and skills about handling of machinery used for value addition were the

main reasons stated by all the respondents.

About half of the respondents mentioned non-availability of credit facility as a reasons for not going for value addition, whereas 22.66, 30.66 ad 25.33 per cent of the respondents mentioned lack of storage infrastructure, high storage charges and unsatisfactory condition of cold storage as the reasons for not going for value addition.

Opinion of potato growers about value addition:

It is clear from the data given in Table 4 that all the potato growers agreed that value addition is a complex process and it requires technical knowledge, higher initial investment, higher cost of construction, sufficient knowledge about handling of equipments.

All the potato growers also agreed that value addition adds to the profit of farmers and is a need of the day. Value addition increases the market price and shelf life of products, value added products are easy to transport and catch more attention of consumers.

Awareness of respondents about different methods of value addition and processed products of chillies:

All the respondents were aware that picking, cleaning, grading and packing are the methods of value addition in chilli.

A further perusal of the data in Table 5 revealed that 90.67 and 86.67 per cent respondents were aware that sorting and storage can also add value to the produce.

Table 1: Awareness of potato growers about different methods of value addition (n=75)

Sr. No.	Method	Aware		Not Aware	
		Frequency	Percentage	Frequency	Percentage
1.	Sorting	62	82.67	13	17.33
2.	Cleaning	75	100.00	--	--
3.	Grading	74	98.67	1	1.33
4.	Pre-cooling	13	17.33	62	82.67
5.	Packing	75	100.00	--	--
6.	storage	75	100.00	--	--

Table 2: Awareness of potato growers about processed products of potato (n=75)

Sr. No.	Product	Aware		Not aware	
		Frequency	Percentage	Frequency	Percentage
1.	Potato chips	75	100.00	--	--
2.	Potato papad	25	33.33	50	66.67
3.	Samosa	75	100.00	--	--
4.	Pakora	54	72.00	21	28.00
5.	Tiklki	52	69.33	23	30.67
6.	Potato meal	1	1.33	74	98.66
7.	French fries	3	4.00	72	96.00

Table 3: Reasons for not going for value addition in potato (n=75)

Sr. No.	Reasons	Frequency	Percentage
1	Technical		
	Lack of knowledge about processing	75	100.00
	Lack of knowledge about packaging	75	100.00
	Lack of knowledge about equipments and machines	75	100.00
	Lack of knowledge and skills about handling of machines	75	100.00
2	Equipments/Inputs		
	Equipments for value addition are not available	42	56.00
	High cost of equipments	75	100.00
3	Non-availability of credit facilities	39	52.00
4	High cost of starting of processing unit	75	100.00
5	Lack of time for value addition of produce	75	100.00
6	Storage		
	Lack of storage infrastructure	17	22.66
	High storage charges	23	30.66
	Unsatisfactory conditions of cold storage	19	25.33

Table 4 : Opinion of potato growers about value addition (n=75)

Sr. No.	Opinion	Agree		Disagree	
		Frequency	Percentage	Frequency	Percentage
1.	It is a complex process and requires technical knowledge	75	100.00	--	--
2.	It requires higher initial investments	75	100.00	--	--
3.	Non-availability of equipments	23	30.67	52	69.33
4.	Higher cost of construction of processing unit	75	100.00		
5.	Lack of storage infrastructure	17	22.67	58	77.33
6.	Higher charges for storage	23	30.67	52	69.33
7.	Technical skills are required for operating equipments and machines	75	100.00	--	--
8.	Lack of knowledge about equipments for particular process	75	100.00	--	--
9.	It adds profit to the farmers and is the need of the day	75	100.00	--	--
10.	It increases the market price of product	75	100.00	--	--
11.	It increases shelf life of product	75	100.00	--	--
12.	Value added products are easy to transport	75	100.00	--	--
13.	Value added products catch more attraction of consumers as they adds flavour to product	75	100.00	--	--

Table 5 : Awareness of chilli growers about processed products of chilli (n=75)

Sr. No.	Product	Aware		Not Aware	
		Frequency	Percentage	Frequency	Percentage
1.	Pickle	75	100.00	--	--
2.	Dry chilli	21	28.00	54	72.00
3.	Sauce	75	100.00	--	--
4.	Chilli powder	57	76.00	18	24.00
5.	Chilli paste	33	44.00	42	56.00

Table 6 : Reasons for not going for value addition in chilli (n=75)

Sr. No.	Reasons	Frequency	Percentage
1	Technical		
	Lack of knowledge about processing	75	100.00
	Lack of knowledge about packaging	75	100.00
	Lack of knowledge about equipments and machines	75	100.00
	Lack of knowledge and skills about handling of machines	75	100.00
2	Equipments/Inputs		
	Equipments for value addition are not available	50	66.00
	High cost of equipments	72	96.00
3	Non-availability of credit facilities	39	52.00
4	High cost of starting of processing unit	75	100.00
5	Lack of time for value addition of produce	75	100.00
6	Storage		
	Lack of storage infrastructure	17	22.66
	High storage charges	55	73.33
	Unsatisfactory conditions of cold storage	2	2.66

Table 7 : Opinion of chilli growers about value addition (n=75)

Sr. No.	Opinion	Agree		Disagree	
		Frequency	Percentage	Frequency	Percentage
1.	It is a complex process and requires technical knowledge	75	100.00	--	--
2.	It requires higher initial investments	75	100.00	--	--
3.	Non-availability of equipments	50	66.67	25	33.33
4.	Higher cost of construction of processing unit	74	98.66	1	1.34
5.	Lack of storage infrastructure	19	25.33	56	74.67
6.	Higher charges for storage	50	66.67	25	33.33
7.	Technical skills are required for operating equipments and machines	65	86.66	10	13.34
8.	Lack of knowledge about equipments for particular process	75	100.00	--	--
9.	It adds profit to the farmers and is the need of the need	71	94.66	4	5.34
10.	It increases the market price of product	73	97.34	2	2.66
11.	It increases shelf life of product	75	100.00	--	--
12.	Value added products are easy to transport	68	90.66	7	9.34
13.	Value added products catches more attraction of consumers as it adds flavour to product	67	89.34	8	10.67

All the respondents were aware that pickles and sauce are the processed products of chilli whereas 53.33 and 34.67 per cent respondents were aware about chilli grinder and power mixer, respectively. None of the respondents was aware about equipments like tunnel drier, steam blenches, bowl chopper, bin dries, cabinet drier, magnetic separation and fixed aperture screen used for processing of chillies.

Reasons for not going for value addition of chillies:

In case of potato, there are many reasons due to

which farmers are not practicing value addition at their own level. Similar is the case with chillies. It is evident from data given in Table 6 that all the respondents were not practicing value addition at their own level. Lack of knowledge about processing, equipments, packaging, skills about handling different machines and high cost to set up a processing unit and lack of time for value addition were the main reasons stated by the respondents for not going for value addition.

Majority (73.33%) of the chilli growers gave them reason that there were high storage charges. But lack of

storage infrastructure and unsatisfactory condition of cold storage were not the major reasons for not going for value addition as these reasons were given 22.67 per cent and 2.67 per cent of the respondents, respectively.

Opinion of chilli growers about value addition:

A large majority (94.66%, 90.66%, 89.34% and 86.66%) of the respondents agreed that value addition adds to profit of farmers and is the need of the day, value added products are easy to transport, catches more attraction of consumers and it adds flavor to product and technical skills are required for operating equipments and machines, respectively (Table 7).

About 67.00 per cent of the respondents agreed that there is lack of equipments and there are higher charges for storage. One fourth of the respondents agreed that there is lack of storage infrastructure.

Suggestions:

– None of the respondents received training in production and processing of potatoes and chillies. Therefore, training camps, especially for the youth should

be organized to impart them knowledge about methods/processes, which add value to the produce.

– Farmers may be motivated to go for the preparation of processed products of potatoes and chillies for selling in the market. Since equipments and machines used in the processing of produce are very costly, so credit facilities at less rate of interest and training of the farmers in handling of machines should be ensured.

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