

Research Paper

Study of Potato Growers in Haryana with Special Reference to the Production Constraints

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ABSTRACT

The present study determines that the potato growers are facing many constraints in the production process of potato in Haryana state. The supply chain of different agricultural commodities in India is facing challenges starting from the inherent problems of the agricultural sector. The farmers in the study area are facing various major constraints in the cultivation of potato. The study was carried out at Pipli and Shahabad blocks of Kurukshetra district and, Radaur and Sadhaura blocks of Yamuna Nagar district of Haryana state as both districts are the highest producer of potato in the state. Fifty number of farmers were surveyed from each block of the district thus covering a total of 200 farmers. Henry and Garrett's technique was utilized to determine the constraints faced by the potato growers in the area. The cost of potato seed is very much high and is given the first rank among all the constraints. There is a need to formulate favorable policies by the central as well as state government regarding the direct procurement of the farmers by the government agencies to maximize the producer's share in consumer's rupee. The farmers always face disease incidence and there is a need to develop disease resistant varieties by the research institutions to minimize the losses of the farmers. The raw input materials should be made available at nearest point to the farmers to minimize the cost of cultivation of the potato.

HIGHLIGHTS

- ① Potato seed cost should be minimized.
- ① Farmers are indulged with various constraints in cultivation of potato.
- ① Direct procurement of farmers can avail maximum benefits to them.
- ① Financial institutions should make their procedures less hectic.
- ① Nutritional value of potato is much better as compared to other vegetable crops.

Keywords: Constraints, production, supply chain

India's fruits and vegetables sector is an emerging sector and presents a vast possibility for the agribusiness and the development of the rural areas by a well-established supply chain. As Indian economy depends on agriculture there is a need to formulate proper supply chain models which may play crucial role in enhancing the shelf life and in turn minimize the losses and wastages in fruits and vegetables, increase in farmer income,

improve the livelihood of the farmers and foster employment opportunities for local peoples, which lead to improvement of Indian economy as a whole.

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The potato (*Solanum tuberosum*) ranks as the world's third most important food crop, after wheat and rice. A greater proportion of potato is edible as compared to these staple crops and production is also higher per hectare, which along with its nutritional value, emphasizes its importance and describes ongoing expansion in potato production. It is cultivated in India for more than 300 years and is a rich source of carbohydrates, proteins, minerals, and vitamins. It contains 22.6, 1.6, 0.1, 0.4 per cent carbohydrates, proteins, fat, crude fiber respectively, and 97 kcal. Hence, Potato is observed to be an important crop to achieve nutritional security of the nation. An efficient supply chain can aid to an increase in the marketable surplus by curtailing the inefficiencies in production, storage, processing, and transportation. It makes sure better prices to the farmers inducing them to invest more in the essential inputs so that productivity leaps frog. It emphasizes market opportunities for products and thus helps in maintaining an ever increasing demand for the same. Present supply chain that connects the farmers to both the organized, as well as the unorganized retail, is highly inefficient with a large number of intermediaries, unfavorable government policies and manual handling.

DATABASE AND METHODOLOGY

The study was carried out at Pipli and Shahabad blocks of Kurukshetra district and, Radaur and Sadhaura blocks of Yamuna Nagar district of Haryana state as both districts is having the highest production of potato in the state. Fifty number of farmers were surveyed from each block of the district thus covering a total of 200 farmers. Henry and Garrett's technique was utilized to determine the constraints faced by the potato growers in the area.

Measurement of predictable variable of constraints in the potato production

As part of the study, the researcher selected four blocks in the study area and the villages were selected randomly from each block. The potato growers were randomly asked about the constraints faced by them in the production of potato. The respondent farmers were randomly asked to list down the various constraints faced by them in the production process. Later, ranking was given by the farmers to the constraints faced by them.

The main focus of the study was to determine the constraints faced by the potato growers in the production process in the study area. A list of sixteen constraints was made in the survey schedule and major eight constraints were ranked by the farmers. Thus, assigned ranks by the individual farmers were counted into percent position value by using the formula:

$$\text{Percentage position} = 100(R_{ij} - 0.5)/N_j$$

Where,

R_{ij} = Rank given for i^{th} item of j^{th} individual

N_j = Number of items ranked by j^{th} individual

The per cent position was converted into scores by referring the Garrett's ranking table. Mean scores were calculated by dividing the total score by the number of respondents. Overall ranking was obtained by assigning ranks in the descending order of the mean score.

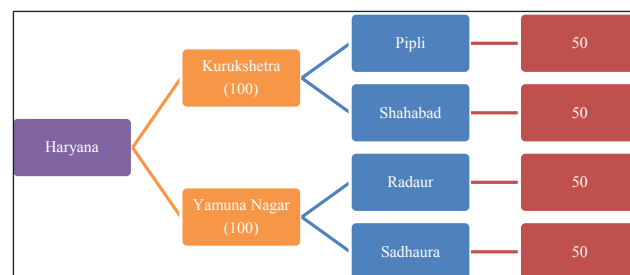


Fig. 1

RESULTS AND DISCUSSION

The importance of horticultural products also increased from economic view point and intensity of higher labor in the production of most of the vegetables also makes them important from the employment point of view. An attempt was made to identify the major constraints related to the production of potato faced by the growers. Results obtained are given in the Table 1.

The results from the table reveals that the first rank was noticed as the higher seed cost with a mean score of 70.30 because the farmers have to travel to the main market of the city to buy the seed which automatically increase the cost of seeds. Second rank identified in the study area were the unfavorable government policies by the farmers with a mean score of 68.98 because the farmers

Table 1: Constraints encountered by farmers in production of potato

Sl. No.	Constraints	Mean Score	Ranking
1	Higher seed cost	70.30	1
2	Unfavorable government policies	68.98	2
3	Non availability of quality seeds	66.21	3
4	High incidence of pest and disease	62.64	4
5	High labor cost	56.48	5
6	High cost of fertilizers and pesticides	55.35	6
7	Distant market to buy inputs	54.33	7
8	Lengthy credit commencement procedure by financial institutions	50.19	8

perceived that government should formulate such policies which could avail them seeds, fertilizers, diesel, pesticides at cheaper rates as compared to the market rates. Direct procurement of the farmers by the government is considered as the major factor by the potato growers so that the producer's share in consumer's rupee can be maximized and they can avail maximum benefits for their produce. The third rank observed was the non availability of the quality seeds with a mean score of 66.21. The farmers in the study area were not able to avail the quality seeds and they encountered major factors considering the vigor and growth of the seed for the production of potato. High incidence of insects and pests with a mean score of 62.64 was ranked fourth as the potato crop is always affected with the potato scab disease in the study area and the need of the development of the high disease resistant varieties is observed by the potato growers. Fifth rank was given to high labor cost with a mean score of 56.48 due to the reason that the labor quantity is less in the peak season and it directly enhances the labor rates in the area and farmers seek help from the government agencies during the peak season of the potato crop harvesting to provide labor at cheaper rates. Sixth rank was given to high cost of fertilizers and pesticides with a mean score of 55.35 and from the opinions observed from the farmers it was considered that the cost of the fertilizers and pesticides should be minimized by the fertilizer and pesticides manufacturing industries so that farmers could avail them at remunerative prices and the total cost of production could be minimized. Seventh rank was given to distant markets to buy inputs with a mean score of 54.33 by the farmers as the farmers have to travel to long distances to buy the input materials for the production process. Least ranked constraint observed were

lengthy credit commencement procedures by the financial institutions with a mean score of 50.19 by the farmers. The farmers have to visit the banks and other financial institutions many times to avail the benefits of the schemes provided by the government. The document work faced by the farmers is very hectic and illiteracy of the farmers always oppose them to visit these government institutions and force them to lend from the private lenders at higher rate of interest.

So from the above discussion it is clearly observed that the potato growers in the study area are facing various major problems in the cultivation of potato and these constraints should be eliminated by the government agencies and the various research institutions so the cultivation of potato could be promoted throughout the state and should be considered as a profitable enterprise in agriculture.

CONCLUSION

From the results observed in the study it can be concluded that the farmers are facing many constraints in the production process of potato. There is a need that central and state government should address these constraints and formulate suitable policies regarding direct procurement of the farmers to maximize the producer's share in consumer's rupee. The availability of quality seeds for the farmers is of big concern, so by developing the disease resistant varieties by the research institutions, the incidence of the insects and pests could be minimized and farmers could avail better prices for their produce in the market and get maximum profits. The agricultural institutions should encourage more extension services to the farmers for their maximum welfare in providing them better techniques regarding cultivation

processes. The farmers have to travel to long distances for the purchase of the input materials and it directly increase their cost of production. So the supply of raw input materials should be made available at village level by the government to benefit the farmers. The illiteracy of the farmers is a very major problem regarding the procedure followed by the financial institutions and it should be made more flexible and less hectic so that farmers do not depend on the private lenders.

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