



CONSTRAINTS IN ADOPTION BEHAVIOUR OF IMPROVED POTATO PRODUCTION TECHNOLOGY AMONG THE FARMERS OF MEERUT DISTRICT (UP)

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ABSTRACT: Agriculture is the prime source of all round development of our country, where crop husbandry contribute significantly towards total economy of our nation. In the context of food requirement of our burgeoning population, potato is one of the important crop for meeting this demand as a wholesome food. The present study was conducted during 2018-19 in purposively selected area Meerut covering 06 villages and a sample of 120 potato growers was selected through proportionate random sampling method. The study revealed that the major constraints for the adoption potato production technologies faced by the potato growers were Fall in Potato price due to inflections in price (93.33%), Shortage of labour as another constraints (87.50%), middlemen interference in purchase(86.66), high cost of input(46.66) etc. few other constraints were also there.

Keywords: Constraints, Potato, Adoption and Production technologies

I. INTRODUCTION

Potato (*Solanum tuberosum* L.) family (Solanaceae) is one of the most important food crop of the world. Potato has been cultivated in Uttar Pradesh for a long time and it has become one of the most popular crop for vegetable purposes. Potatoes are economical food since they provide a source of low cost energy to the human diet. They are rich source of starch and vitamins especially C and B1 and minerals. They contain 20.6% carbohydrates, 2.1% protein, 0.3% fat, 1.1% crude fiber and 0.9% ash on fresh weight basis (Medical Association of India). It also contain good-amount of essential amino acids like leucine, tryptophan and isoleucine etc. Potato is cultivated in area about 19,124,181 million hectare in the world. (World census 2011) The major potato growing countries are China, Russia, Ukraine and India. India is in 3rd position in potato production and in 4th position under area. Potato production has played a vital role in increasing vegetable production of the country. The contribution of the country in world potato pool has increased from 6.4 per cent to 7.8 per cent during last decade with processed products commanding a large share of the potato market. In India, potato is grown over an area of 1,255,667 hectares, with a production of about 23, 191,200 tones. The top eight potato growing states are U.P., West Bengal, Bihar, Punjab, Karnataka, Assam, Gujarat and M.P.(Census 2011)

Knowledge of these constraints is essential to undertake appropriate measures which need to enhance the potato production in the state. Shortage of labour, Lack of knowledge about disease and pest control, Lack of proper transport facilities are few constraints that are common in adoption behaviour of improved potato technology among the farmers.



II. MATERIALS AND METHODS

The present investigation is conducted in Meerut district of Uttar Pradesh state which is purposively selected based on research objectivity and criteria of sampling concerning adoption behaviour of potato growers. In Durala block of Meerut, 6 villages were selected randomly for the present study. Total 120 number of respondents were selected from each selected village for the present study. The primary data was collected with the help of pre-tested-structured interview schedule, designed especially in the light of objectives, whereas secondary data was collected from sources like thesis, journals, literature etc.

Percentage analysis were done to analyse the data. And ranking was done according to results obtained.

Percentage: The term 'Percentage' means a fraction whose denominator is 100 and the number of the fraction is called percentage.

$$P = \frac{X}{N} \times 100$$

Where, P = Percentage X = Frequencies of respondents N = Total number of respondents

III. RESULTS AND DISCUSSION

The constraint analysis is however important to reach out the voice of the farmers and the problems faced by them in order to enable planners, administrators, development workers and policy makers to implement developmental programmes and interventions which could cater to the needs of the farmers and benefit them in an improved manner. These were studied through recording the responses on two point continuum as yes or no.

The results collected from the respondents regarding constraints in adoption behavior of improved potato technology among the farmers are presented in the following table 1

TABLE I. Constraints in the adoption of improved potato production practices

S.No.	Constraints	Response		
		Yes		Rank
		F	P	
1.	Shortage of labour	105	87.5	II
2.	High cost of inputs	56	46.66	IV
3.	Lack of knowledge about disease and pest control	9	7.5	VII
4.	Financial constraints	33	27.5	V



5.	Fall in Potato price due to influctations in price	112	93.33	I
6.	Lack of proper transport facilities	1	0.83	IX
7.	Middleman interference	104	86.66	III
8.	Inadequate training	22	18.33	VI
9.	Storage problem	2	1.66	VIII

Table reveals that the majority (93.33%) of the respondents encountered the problem of fall in Potato price due to influctations in price , followed by Shortage of labour as another constraints (87.50%) and 86.66 per cent said that there is middlemen interference in purchase. Apart from that few respondents (46.66%) expressed that high cost of input raise problem in adopting new technology. Further 27.5 per cent respondents face financial problem as a constraints. 18.33 per cent of the respondents revealed that there is lack of training for new technology practices. Further next constraints was Lack of knowledge about disease and pest control (7.5%). 1.66 percent of respondents revealed that they have storage problem of potato production which leads to poor sale. Lack of proper transport facilities was encountered by least number of respondents.

Few suggestions were pointed down regarding adoption behaviour of improved potato technology from the majority no of respondents were training session about knowledge of diseases & pest of potato, cold storage availability at minimum price by the government and those application which avoid interference of middlemen.

IV. CONCLUSION

Fall in Potato price due to influctations in price, Lack of knowledge about disease and pest control, Shortage of labour, Middleman interference were common constraints in adoption behaviour of potato growers. Since adoption level of respondents was directly related to constraints faced by them. . This study tries to understand the constrains faced by the potato growers in adoption of recommended potato production technology and find out the ways to overcome such constraints. Finding of this study states that high cost of inputs and fluctuating price behaviour is the major constraints faced by the potato growers Price of the inputs should be minimized and timely technical guidance should be made available were the major suggestions offered by the potato growers to boost adoption rate of potato production technology.



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