

## Constraints in Adoption of Improved Variety of Potato

S. S. KUBREVI

*Department of Extension Education, Allahabad Agricultural Institute, Deemed University, Allahabad, India*

### Abstract

Majority (30%) of potato growers face difficulties as improved seeds of potato were not available at the proper time, middleman takes more commission, the seed should be supplied at the right time. Problems faced by majority 58% of potato non-growers (local variety) were that the improved variety of potato is expensive. The suggestions enlisted by the potato growers were availability of proper marketing facilities, help to report the produce, government to provide technical help and reduce the long chain of intermediaries.

**Key words :** Potato, Improved variety, Constraints, Adoption.

With the update of modern potato technologies India now ranks fourth in area and third in production of potato in the world. Although the potato productivity in India is little better than the world average (166.3 quintals/hectare), it lags behind many countries of Europe and America. By 2020 India will have a population of 1.3 billion bringing about a substantial pressure on land to produce more food. Moreover, with the improvement in living standards of people, there will be shift in dietary pattern from cereals to vegetables this will require the country to produce about 49 million tonnes of potato and most of it has to come through increased productivity. Adoption of modern technologies would be imperative to achieve the desired productivity levels. It is also estimated that by 2020 world wide demand for potatoes would increase by 40% as a result of increased urbanization, rise in per capita income and fast expanding tourism (1—3).

### Methods

The study was conducted in Budgam district of Jammu and Kashmir. Out of total 14 districts of Jammu and Kashmir state, potato is cultivated in ten districts, but in commercial level it is cultivated in Kashmir division in Baramulla, Budgam, Srinagar and Anantnag. Budgam district was selected purposively as it has highest area about 80% under potato cultivation. The block Chadoora was selected purposively as this block has large area under potato cultivation and comprises good number of villages under potato

cultivation with its farmers having good experience and knowledge about potato cultivation. A list of the villages of the selected block was taken from the BDO office where the cultivation of the potato is practiced. Only those villages were considered as the potato growers who have cultivated more than 10% of the total cultivated area. Then villages were divided into two groups on the basis of potato cultivation i.e. growers villages and non-growers villages. The growers villages were again listed in ascending order of their cultivated area of potato crop. Then five villages were selected randomly.

A complete list of all the farmers who cultivated potato crops were obtained from the respective village heads. Only those respondents were considered as a potato growers who are cultivating potato crop in more than 10% of their cultivated holdings. Then potato grower respondents were classified into two groups. On the basis of improved potato growers and local variety of potato growers in all the five randomly selected villages. Then 20% of improved variety of potato growers were selected randomly in all the five villages. These improved variety of potato growers were 50 in number and the same number of the farmers were also selected as a local variety growers in all the five randomly selected. Thus, a total number of 100 farmers constituted the sample for the purpose of this study.

Improved variety of potato growers means those farmers who is cultivating potato crop under the scientific methods and these farmers are called improved variety of potato growers. Local variety of potato grow-

**Table 1.** Difficulties faced by the potato growers (improved variety).

Difficulties faced	No. of potato growers	Percentage
1. Government do not benefit the farmers	1	2.5
2. There is no any other market except Jammu to sell the produce	7	17.5
3. Government do not take a keen interest for the benefit of the farmers	1	2.5
4. Government do not provide the marketing facilities	7	17.5
5. Government of unaware of the farmers problem	1	2.5
6. Government did not do their job well	1	2.5
7. Government did not help the farmers to export the produce	2	5
8. There is no cold storage facility for the extra seeds	2	5
9. Non availability of better inputs	1	2.5
10. Lack of knowledge and skill	2	5
11. Non availability of agriculture inputs at subsidiary rates	1	2.5
12. Improved seeds of potato are not available at the proper time	12	30
13. More labor are required for the cultivation of potato	2	5

ers means those farmers who is cultivating potato crop under the unscientific methods or traditional

**Table 2.** Opinion of potato growers (improved variety) regarding main drawbacks of potato farming.

Drawbacks	No. of potato growers	Percentage
1. Lack of supplying seeds at the proper time	3	8.3
2. Bringing local variety that did not give sufficient yield	1	2.7
3. Supplying of diseased seeds	2	5.5
4. The middleman takes more commission	20	55.5
5. Low selling price	5	13.8
6. Risk bearing factor	5	13.8
7. Lack of knowledge	-	-
8. Improved variety of seeds is an expensive proposition	1	2.7

**Table 3.** Suggestions for further improvement of potato farming.

Suggestions	No. of potato growers	Percentage
1. The seeds should be supplied at the right time	17	44.7
2. There should be proper marketing facility to sell the produce	8	22.2
3. Government should have cold storage facility	4	11.1
4. The subject matter specialist (SMS) should guide the farmers	1	2.7
5. The government should to solve the farmers problem	2	5.5
6. The government should give the technical advice	1	2.7
7. Provision of loan and credit facility	3	7.8
8. Demonstration of improved practices	1	2.7
9. Good quality seed should be provided at the government level	1	2.7

methods. The data was collected through structured pre-tested interview schedule by personal interview method. Further, data was categorized and classified according to need of the study. The present study will help the government agencies and other organizations to see the constraints and the problem faced by the farmers and would help to make policy to solve the problems.

## Results and Discussion

Table 1 shows that 30% of growers reported that improved seeds of potato are not available in proper time. They were followed by 17.5% of growers who said that there was no other market except at Jammu to sell the produce and another 17.5% said that government did not provide the marketing facilities, 5% said that government did not help the farmers to export the produce. There is no cold storage facilities for the extra seed, lack of knowledge and skill and more labor are required for the cultivation of potato. Only 2.5% reported that government was

**Table 4.** Problems faced by potato non-growers (local variety).

Problems/reasons	Number of potato growers	Percentage
1. Because the seed of improved variety of potato is costly	1	2
2. Government do not provide improved seeds of potato at right time	18	36
3. Improved variety of potato is very expensive proposition	29	58
4. There should be loan facility for the improved variety of seeds	1	2
5. Improved variety of seeds are not given at subsidiary rates	1	2

unaware of their problems, did not provide better inputs and agricultural inputs at subsidiary rates. Therefore, the majority of potato growers (30%) face difficulty as improved seeds of potato were not available at the proper time.

Thus 8.3% of respondents mentioned lack of supply of seeds at the proper time ; cultivation of local variety did not give sufficient yield (2.7%); and improved variety of seeds was expensive ; supply of diseased seeds (5.5%) ; the middleman took more commission (55.5%) ; and low selling price and risk bearing factor (13.8%). Therefore, majority of the respondents were of the opinion that main drawback of potato farming was middleman who took more commission (Table 2).

Table 3 shows that 44.7% of respondents suggested that seeds should be supplied at the right time ; there should be proper marketing facility to sell the produce (22.2%) ; government should have cold storage facility (11.1%) ; 7.8% suggested provision of loan and credit facility ; government should try to solve the farmers problems (5.5%) ; subject matter specialist should guide the farmers (2.7%) ; govern-

ment should give technical advice, demonstration of improved practices and good quality seeds should be supplied at the government level.

Table 4 shows that 28% respondents found improved variety of potato expensive ; government did not provide the improved seeds of potato at the right time (36%) ; there should be loan facility for the improved variety of seeds (2%).

#### *Recommendation*

The following recommendations were made for improvement of potato cultivation : More areas may be brought under potato cultivation ; effort should be made to educate the farmers to improve their knowledge ; the potato growers should be given technical assistance ; better credit facilities should be provided to the farmers ; to bring awareness regarding the aesthetic, high nutritive value and other commercial use of potato ; to create awareness regarding the middleman who takes more commission ; to increase marketing facility to the potato growers ; availability of improved seeds of potato at low cost ; and to make awareness regarding disease, pests, insects and other hindrances like non-availability of inputs to the grower.

#### **References**

1. Pangli Laulan L., F. Mandac and E. Sana. 1993. Socio-economic insights of the introduction and adoption low land potato production. South East Asian program for potato research and development. Manila Supprad on the second phase-3. Research papers and progress report on development activities, volume 1 ; Potato. Manila.
2. Muttaleb M. A., M. A. Hussain and M. A. Rashid. 1998. Adoption level and its constraints of selected recommended potato technology. Bangladesh J. Training and Devel. 11 : 101—108.
3. Singh Sukhpal and S. Singh. 2000. Contact farming for agricultural diversification in the Indian Punjab : A study of performance and problems. Indian J. Agric. Econ. 55 : 283—294.