



Research Article

Training needs of potato growers in Nalanda district of Bihar

■ S.L. VERMA AND M.N. ANSARI

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SUMMARY : The present study was undertaken in Nalanda district of Bihar. The findings revealed that training in plant protection measure was given top priority by all the selected potato growers followed by the area of high yielding variety. The seed treatment was as served as the third rank area related with the training need among the potato growers followed by sowing method and sowing time. The manures and fertilizer management, irrigation and drainage and weed management were consequently observed as the important relative needs areas for training among the potato growers as per order of the merit indicating their average mean score of 2.38, 2.31 and 1.88, respectively. Regarding the plant protection measure the study revealed that potato growers wanted awareness about use of various insecticide and pesticide, identification major insect pest and disease, cause of spread and also about time and method of control.

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technology

BACKGROUND AND OBJECTIVES

Potato, the king of vegetables, has emerged as one of the most important food crops of India. Potato ranks fourth after rice, wheat and maize. The power of potato is known for sustaining millions of lives by providing nutritious food in the time of war and hunger. The high production potential per unit area, high nutritional value and great taste make potato one of the most important food crops in our country. Four major potato growing state viz., U.P., West Bengal, Bihar and Punjab alone account for 74 per cent area and 84 per cent potato production in the country. However, there are wide productivity gaps among various states ranging from 4.21 t/ha in Sikkim to 24.62 t/ha in Gujarat. At present Bihar ranks 3rd in potato area and production among different states of India. Potato productivity in our state is quite low due to several problems faced by the farmers in its cultivation.

The present production of potato could be increased considerably if the available technology is effectively transferred to the farmer. Our training programme need to focus

more on transferring of new technology from the confines of laboratories and research institute to the farmers and make then result oriented. It profitability needs to be enhanced further, but still profitability of potato growing is beset with many constraints faced by potato growers due to production and marketing. So, therefore, the potato growers need to be properly trained in the latest improved cultivation practices for realizing more productivity and production of crops. Keeping all these aspects in view, the present study was undertaken to ascertain the training needs of potato growers in the main areas of training with respect to improved potato cultivation and to know the training needs of potato growers in the sub-areas of plant protection measures.

RESOURCES AND METHODS

Nalanda district of Bihar state has been identified as a locale of present research enterprise in view of its importance in terms of area and total production of potato crop. There are twenty blocks in Nalanda district. Out of 20

Author for correspondence :

M.N. ANSARI

Department of Extension
Education, Tirhut College
of Agriculture,
MUZAFFARPUR (BIHAR)
INDIA

Email: mnansari.tca@
gmail.com

See end of the article for
authors' affiliations

blocks, two blocks were selected on the basis of potato area figure. Biharsharif block having highest area and Katrisarai block having lowest area were selected as a locale of study. Further, from each block, two villages were selected randomly. A list of all potato growers with minimum of one acre area under potato cultivation was prepared. Fifteen potato growers were taken from each of the selected villages. Thus, a total number of 60 potato growers constituted as the sample for the present study. The data were collected with the help of interview schedule. The data were analyzed using various statistical tools such as frequency, mean score and ranking.

OBSERVATIONS AND ANALYSIS

The results of the present study as well as relevant discussions have been presented under following sub heads:

Training needs of potato growers in the main areas of training :

The relative training needs of farmers in the nine main areas of training with respect to the improved potato cultivation as perceived by the respondents have been presented here in Table 1.

The result related to the Table 1 reveals that selected potato growers were perceived the area of 'plant protection measures' as their first and top most required need for the training indicating its mean score of 2.73 followed by the area of 'high yielding varieties' which received the 2nd rank during the course of study having its mean score of 2.63.

Table 1: Training need of potato growers in the main areas of training

Sr. No.	Main areas of training	Mean score	Rank
1.	High yielding varieties	2.63	II
2.	Seed treatment	2.55	III
3.	Sowing method and sowing time	2.48	IV
4.	Manures and fertilizer management	2.38	V
5.	Irrigation and drainage	2.31	VI
6.	Weed management	1.88	VII
7.	Plant protection measures	2.73	I
8.	Harvesting	1.28	IX
9.	Marketing storage	1.31	VIII

Table 2 : Training need of potato growers in the sub-areas of plant protection measure

Sr. No.	Sub-areas of training	Mean score	Rank
1.	Identification of major insect pest and disease	2.86	II
2.	Cause of spread	2.83	III
3.	Time and method of control	2.68	IV
4.	Awareness about use of various insecticide and pesticide	2.88	I
5.	Preparation of pesticide solution	2.65	V
6.	Handling of plant protection implementation	2.21	VI
7.	Residual effect of insecticides and pesticides	2.18	VII

The 'fungicidal treatment' was observed as the third rank area related with the training needs among the potato grower, followed by 'sowing methods and sowing time' indicating its mean value of 2.48. The manures and fertilizer management, irrigation and drainage and weed management were consequently observed as the important relative needs area for training among the potato growers as per order of their merit indicating their average score of 2.38, 2.31 and 1.88, respectively. The other important area like marketing and storage and harvesting were also recognized as an important area of training needs by potato grower of this area but their relative rank were found at 8th and 9th indicating average score of 1.31 and 1.28, respectively.

These areas were considered as least needed areas among the potato growers. In fact potato crop is often affected by certain diseases and pest. So, it was the obviously reason to perceived the first priority of the area of plant protection. Higher yielding variety was considered as the next important area in which farmer were having little scope to know therefore, they have recognized it as an important area of training needs. Similar findings were also reported by Raut *et al.* (1997), Sharma *et al.* (1998), Bajpai *et al.* (2007) and Chawang and Jha (2010).

Training needs in the sub-areas of plant protection measures:

The findings related with training needs in the sub-areas of plant protection are given in Table 2.

Table 2 revealed that potato growers were perceived the

sub-area of 'awareness about use of various insecticide and pesticide' as the top most relative need for the training indicating its mean score of 2.88 followed by the sub-area of 'identification of major diseases' which received the second rank during the study having its mean score 2.86. The sub-area of 'cause of spread' was observed as the third rank related with the training need among the potato growers followed by 'time and method of control' indicating its mean value of 2.83. The 'preparation of pesticide solution,' 'handling of plant protection implement' and 'residual effect of insecticides pesticides' were consequently observed as the important relative need sub-area of training among the selected potato growers as per order of their merit indicating their average values of 2.65, 2.21 and 2.18, respectively. Highest training need for the farmers in general plant protection had also been reported by Kumar (1985). Among different aspects of identification of plant protection, control of diseases has always possessed a major challenge before the potato growers. Once the disease appears on the crop the yield is drastically reduced. It is, therefore, natural that potato growers in respect of their size of holding felt the need for training in measure to control the disease. The study was in the line of Singh and Arneja (2005).

Authors' affiliations :

S.L. VERMA, Department of Extension Education, Rajendra Agricultural University, Pusa, SAMASTIPUR (BIHAR) INDIA

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