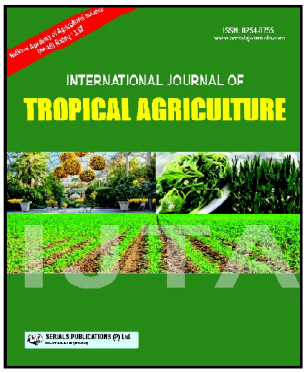

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Training need of Potato growers of Tripura

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Abstract: The study was conducted in Khowai district of Tripura to find out the training need of potato growers of Tripura. The potato growers in the main areas of training need perceived that plant protection measures as their first and top most required training need indicating its percentage, i.e., 92.50 per cent followed by seed treatment (74.17%,) and manures and fertilizer management (67.50%) which received 1st, 2nd and 3rd rank respectively. It was also found that the perceived sub areas by respondents were awareness about use of various insecticide and pesticide as the top most relative need indicating 92.50% with 1st rank followed by cause of spread (84.16%) and identification of major insect pest and disease (81.67%) which received the 2nd and 3rd rank respectively.

Key word: Training need, Potato grower, Potato, Tripura

INTRODUCTION

North east India consists of 8 states, viz., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. Compared to national average of 18.2 t/ha, potato yield in the NE states except Tripura (19.7 t/ha) has been all time low (4.2-8.3 t/ha). The low potato yield in the NEH region could be attributed to many factors. However, per capita availability of potato in the region is higher than the national level. (Singh *et al*, 2003). Potato is one of the important crops grown in Tripura. The significance of this crop to the rural economy as well as agriculture of the state could be comprehended from the fact that potato occupies more than 5717 thousand hectare of land which accounts for 110 thousand MT productions (FIB, 2008). But though figures are satisfactory then also farmers are facing big loss in terms of yield. The main reasons for the low potato yields are adequate and untimely availability of essential crop inputs like healthy seed, fertilizers, pesticides etc. coupled with poor management practices followed by the growers.

Prevalence of serious diseases like late blight, brown rot/ bacterial wilt, etc, is also responsible for low productivity in the region.

Potato cultivation in Tripura was introduced during the regime of Maharaj Bir Bikram Kishore Manikya Bahadur (1923-1947). During that period, *'Phulwa,'* an indigenous cultivar of potato was popularly grown in the state and was known as *Tippera* or *Comella deshi* to the farmers. It was characterized by small to medium size, white colour, smooth skin, round shape and yellow flesh. The characteristic feature of good keeping quality and high temperature storage resistance allowed the cultivators to store their produced stock in local conditions. After independence, some more indigenous varieties like *'Lal alu'*, also known as *'Pahari alu'* and *'Lal deshi', 'desi sada guri alu'*, *'deshi lal guri alu'* etc. were brought under cultivation in the state. The tubers of these rough skinned local cultivars were medium in size, red in colour, round in shape and yellow in flesh. The varieties were usually susceptible to mosaic and late blight diseases. During 1960s, some new varieties namely, *Royal kidney*, *President*, *Magnum Bomum* and *Great Scot* were introduced in the state but those did not gain much popularity among potato growers. With state and central government initiatives, gradually a number of new varieties started getting introduced and cultivated in the state, e.g., during 1970s and 80s *Kufri Jyoti*, *Kufri Sinduri*, *Kufri Chandramukhi, Kufri Jeevan, Kufri Badshah* etc. were introduced. Till date *Kufri Jyoti* is the only variety largely accepted by the potato growers of Tripura.

RESEARCH METHODS

The study was conducted in Khowai district of Tripura with 120 randomly selected potato growers. A structured schedule was prepared containing different areas related to potato cultivation which was administered to the sample selected for the study. The frequency and percentage were calculated and the training need areas were ranked based on the percentage.

RESULTS AND DISCUSSION

The result related to training need of potato growers in the main areas of training need presented in Table 1 reveals that majority of the respondents perceived that plant protection measures as their first and top most required need for the training indicating its percentage, i.e., 92.50 per cent which received 1st rank followed by training need on seed treatment (74.17%,) and manures and fertilizer management (67.50%) which received 2nd and 3rd rank respectively. The weed management was observed as the forth rank area with 59.17 per cent followed by sowing method and sowing time (40.83%), irrigation & drainage (35.00%), marketing (25.00%) and storage (17.50%) with 5th, 6th, 7th and 8th rank respectively. Potato crop is often affected by certain diseases and pest. So, obviously it was the reason perceived by the respondents that plant protection measures as the first area for training need. Similar findings were also reported by Nath *et al.,* (2014).

The findings related to training need in the sub areas of plant protection are presented in Table 2. Data presented in Table 2 reveals that TPS 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 92.50 per cent with 1st rank followed by the sub area of cause of spread (84.16%) and identification of major insect pest and disease (81.67%) which received the 2nd and 3rd rank respectively. The residual effect of insecticides and pesticides (75.00%), time and method of control (72.50%), handling of plant protection implements (59.16 %) and preparation of pesticide solution (47.50 %) which received 4th, 5th, 6th, and 7th rank respectively. Among different aspects of identification of plant protection, management of diseases has always possessed major challenges before the potato growers. Once the

Table 1
Training need potato growers in the main areas of training (N= 120)

S. No.	*Main areas of Training*	*Frequency*	*Percentage*	*Rank*
1	Seed treatment	89	74.17	II
2	Sowing method and sowing time	49	40.83	V
3	Manures and fertilizer management	81	67.50	III
4	Irrigation and drainage	42	35.00	VI
5	Weed management	71	59.17	IV
6	Plant protection measures	111	92.50	I
7	Marketing	30	25.00	VII
8	Storage	21	17.50	VIII

Table 2
Training need of potato growers in the sub areas of plant protection measures (N= 120)

S. No.	*Main areas of Training*	*Frequency*	*Percentage*	*Rank*
1	Identification of major insect pest and disease	98	81.67	III
2	Cause of spread	101	84.16	II
3	Time and method of control	87	72.50	V
4	Awareness about use of various insecticide and pesticide	111	92.50	I
5	Preparation of pesticide solution	57	47.50	VII
6	Handling of plant protection implements	71	59.16	VI
7	Residual effect of insecticides and pesticides	90	75.00	IV

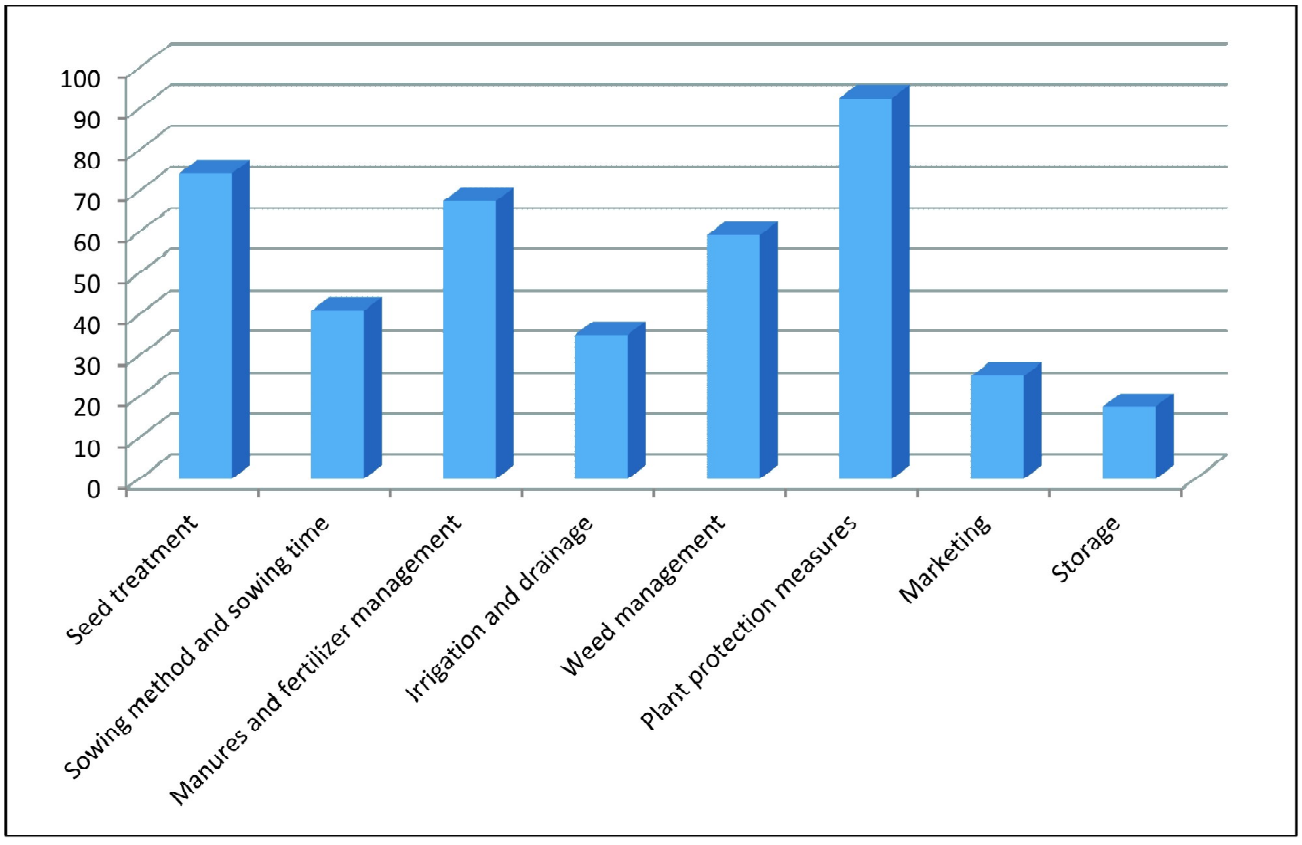

Figure 1: Training need potato growers in the main areas of training

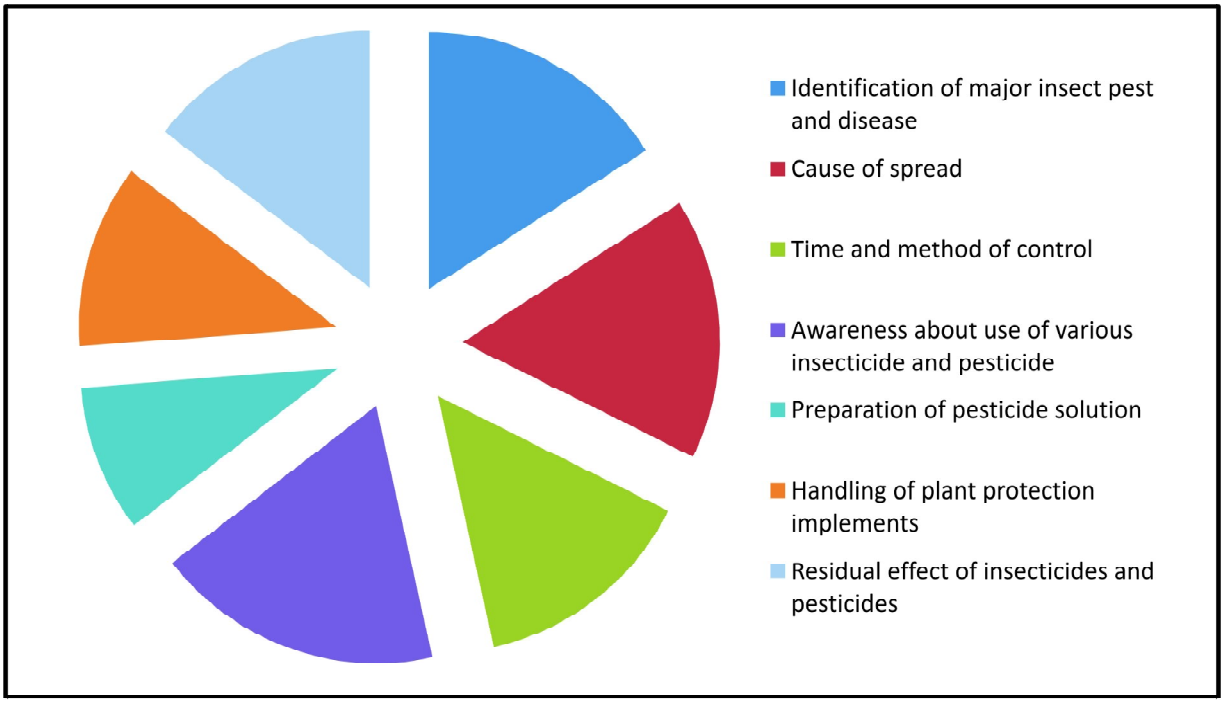

Figure 2: Training need of potato growers in the sub areas of plant protection measures

disease appears on the crop yield is drastically reduced. Therefore, the potato growers felt the need for training in measure to control the disease. The study was in line with Verma *et al.* (2013).

CONCLUSION

A competent technique for transferring technologies to target users is a key towards all round development of any sector. The knowledge gain of potato growers need to be enhanced through focused training priority on plant protection measures of their crops. These includes primarily on the use of time specific fungicides and insecticides, proper identification of particular pests and diseases and their nature of spread etc. Farmers are not getting optimum assured profit due to lack of sufficient knowledge with respect to above mentioned identified top reasons as well as its application in their field. So, it is utmost necessary that the agricultural extension workers, through regular trainings on plant protection measures with the potato growers should guide the farmers to get optimum yield per unit area by effective management against pests and diseases.

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