



Research Paper

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Constraints in adoption of recommended true potato seed (TPS) production technology in Tripura

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ABSTRACT : The experiment was aimed to find out the constraints in adoption of TPS production technology in Tripura. Likewise, Khowai and Teliamura sub-division was selected. The major findings in terms of personal constraints were small cultivable land followed by scattered land, low level of education and large family size. In case of socio economic constraints, lack of adoption of technology in large scale followed by lack of agricultural labour, lack of sufficient loan and low yield were reported as the major constraints. In case of technical constraints maximum number of respondents agree with the fact about non availability of agricultural inputs.

KEY WORDS : TPS, Constraints, Production technology, Adoption, True potato seed

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North east India consists of 8 states, namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The NE hill region lies between 21 degree – 29 degree North latitude and 89 degree to 98 degree East longitude and is characterized by hot sub humid (moist) to humid agro- climate in the Assam plains and warm per-humid in the hilly areas of the region. Nearly 10% of the total geographical area in India comes under the NEH region and has about 10% of the country's total potato area (Anonymous, 2005). 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) (FIB, 2008). 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). 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. In Tripura, true potato seed (TPS) could be an alternative technology to increase productivity and reduce the cost of potato production. TPS in place of traditional seed tubers offers several advantages-

- TPS is a low cost planting material and is quite useful

to small and subsistence farmers providing them a viable option to overcome weakness of clonally propagated tuber seed. Only 100 g TPS is needed for one ha as compared to nearly 3 tonnes of seed tubers required to plant the same area.

- TPS is convenient and inexpensive to store from one planting season to another and can be stored even for several years under ambient conditions by maintaining seed moisture content between 3-5% during storage.

- TPS derived seedling tubers cost approximately one-tenth the cost of quality seed tubers (Rs. 25,000-30,000) needed for planting one ha.

- Easy transportation, as only 100g TPS is needed for planting one ha area instead of nearly 3 tonnes seed tubers.

- TPS provides an opportunity to fit potato into different cropping systems as tuber seed of correct physiologically age cannot be available to the farmers as and when required.

- Multiplication of healthy/ quality material through TPS is much faster than the traditional process of certified seed production. Utilization of TPS can eliminate the production of foundation and basic seed required in the formal tuber seed production system.

RESEARCH METHODS

The present study was conducted in 20 villages of