



## Prosperity through SRI technology intervention in Tripura

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East Ramchandraghat is a village of Khowai district of Tripura. People of this village are mostly schedule caste and are mainly depends on agriculture. A farmer club namely Nabin Krishak Club was being formed by KVK, West Tripura with 19 numbers. of small and marginal farmers of that village. Paddy is the major crop of the village and they used to grow it in both *Kharif* as well as in *Rabi* season. Earlier, they were growing paddy by using traditional system of cultivation like irregular spacing, no. seed treatment, continuous flooding, seedling of older age, use of more than 3 numbers.

Seedling during transplanting, no plant protection measures etc.

With the technological and critical input support from KVK, West Tripura in collaboration with Department of Agriculture, Govt of Tripura with financial assistance from National Food Security Mission (NFSM) under cluster demonstration programme of SRI on HYV

paddy during the year 2014-15. All the farmers got remarkable profit through SRI with HYV (var. Gomoti). **Intervention of KVK, West Tripura :** KVK, West Tripura is situated at Chebri village of Khowai district of Tripura. Mr. Chandan Das president of the farmers club came in contact with KVK scientists and posed their problems regarding less yield of paddy. KVK team studied the profile of their field and advised them to participate in the training programme on SRI under NFSM. After the training programmes all the member of the Nabin Krishak Club participated in the cluster demonstration of SRI on HYV paddy taking Gomoti as HYV. With a cluster area of 10 ha for harnessing paddy productivity during *Kharif* season of the year 2014-15.

The System of Rice Intensification (SRI) is not a new method or technology. It is just altering the management practices to make more productive phenotype from the same genotype of rice plant. Artificial environment is

created for growth and development of rice plant for exploitation of its full genetic potential, land and water resources. SRI is based on the principles, viz., i) Young seedlings between 8-12 days old (2-3 leaf stage) are transplanted to preserve potential for tillering and rooting ability. ii) Careful planting of single seedlings rather than in clumps that are often plunged in the soil; transplanting of tender seedlings need care to minimize root trauma. iii) Wider spacing at 25 cm x 25 cm. in square planting rather than in rows; this can also be done with the help

of rope by marking. iv) Use of cono-weeder/ rotary hoe/power weeder to aerate the soil as well as controlling weeds;

The first advantage of using the weeder is the control of weeds and also adding organic matter to the soil. This gives the benefits of cultivating a green manure crop.

Further, the soil gets aerated and the roots are exposed to air. This results in

profuse growth of diverse soil micro organisms which make nutrients available to the plant. v) Alternate wetting and dry method rather than continuous flooding in the field; as the soil is not flooded, the roots of the paddy plants grow healthy, deeply in all directions. The root growth is extensive also due to the wide spacing. As the field is intermittently irrigated and dried, the micro organisms grow well which make nutrients available to the plants. This method also helps in better growth and spread of roots. vi) Use of organic manure or vermicompost / FYM. All the principals of SRI were being followed and critical input support was given with the help of Department of Agriculture, Govt of Tripura. Regular field visits were also made by the scientists of the KVK for smooth running of the demonstration programme.

**Impact :** Before the KVK intervention the farmers earned only Rs. 0.1 lakh/ha with BC ratio around 1.25 by cultivating paddy under conventional management.





**Table: 1 Economics of paddy cultivation**

Crop	Traditional system (pre KVK intervention.)					After KVK intervention (SRI cultivation)				
	Cost of cultivation (Rs./ha)	Yield (t/ha)	Gross income (Rs.)	Net income (Rs.)	B:C	Cost of cultivation (Rs.)	Yield (t/ha)	Gross income (Rs.)	Net income (Rs.)	B:C
Paddy var. Gomoti	<b>Input cost:</b> Seeds: 1000.00 Fertilizer and manure : 4292.00 Labour(includes nursery preparation, sowing, land preparation, transplanting, weeding, harvesting): 40625.00 <b>Total cost: 45917.00</b>	4.8	57600.00	11683.00	1.25	<b>Input cost:</b> Seeds:120.00 Fertilizer manure and bio fertilizer: 2400.00 PPC: 1700.00 Labour Cost(includes nursery preparation, sowing ,land preparation , transplanting, weeding, spraying, harvesting): 46875.00 <b>Total cost: 51095.00</b>	7.5	90000.00	38905.00	1.76

After KVK intervention for the same with a huge success of the paddy production; on an average they got a yield of 7.5 t/ha. They earned a gross return of around Rs. 0.9 lakh/ha by selling the produce in local market with average price of Rs. 12.00/kg. They spent around Rs. 0.51 lakh/ha as total cost of production including land preparation, input cost, labour etc. So, their net return from paddy

cultivation with the adoption of KVK guidance was Rs. 0.39 lakh/ha and BC ratio for the same was around 1.76. They are now so happy with SRI cultivation that they have purchased a land on lease by investing their income of paddy. Moreover, they are really acted as motivator for several other farmers to adopt the SRI technology.

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