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# Farmers perception of SRI technology: a study of West Tripura district of Tripura

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## ABSTRACT

The study was conducted in the state of Tripura to ascertain paddy growers' perception of system of rice intensification (SRI) technology and also delineate the constraints as perceived by them in large scale adoption of SRI technology. Findings revealed that majority of the farmers perceived SRI technology good as it reduced the seed quantity and cost, resulted in higher yield as compared to normal paddy cultivation methods and there was judicious use of irrigation water. Similarly majority of the farmers rated SRI technology as superior. Timely weed management of the crop, intensive care required at seedling stage, more labour needed at the time of cultivation practices were the constraints perceived by more than 85 per cent of the farmers in the large scale adoption of SRI technology.

**Keywords:** Constraints; judicious; perception; SRI; traditional

## INTRODUCTION

System of rice intensification (SRI) involves the use of certain management practices which together provide better growing conditions for rice plants particularly in the root zone than those for plants grown under traditional practices. SRI method is having several advantages over the traditional system of paddy cultivation as the seed requirement is low as compared to the traditional system, it requires less water for irrigation and incidence of pests and diseases is low as the soil is allowed to dry intermittently. But most vital part in this technology is that yield is quite higher than the traditional system of paddy cultivation. But farmers face several problems in identifying this technology. In Tripura state farmers are having small land holdings and are very poor. SRI technology requires more labour per hectare than traditional methods of growing rice. As such the farmers are showing no interest in adopting this technology though it is having great potentiality (Anon 2007). At the same time farmers are not familiar and comfortable with the transplanting of tiny seedlings with fairly exact spacing and depth of planting in this technology.

## MATERIAL AND METHODS

The present study was carried out in the state of Tripura. The West Tripura district was selected purposively to carry out the present study. Interview schedule consisting of structured questions was constructed to achieve the objective formulated for the present study. Data were collected by using personal interview method from the locality. The collected information was scored as I, II, III and IV based on the percentage (from higher to lower).

## RESULTS AND DISCUSSION

Findings (Table 1) revealed that labour requirement during nursery and transplanting stage was more than the normal paddy cultivation method. Similarly extent of seedling mortality and transplants crop mortality was similar to traditional paddy cultivation method. But weed management (93%) was the serious issue and this was similar with the findings of Rao and Lakshmana (2007). Besides the water management, nutrient management and disease incidence rate were same as in the case of traditional paddy growing system. However insect pest infestation was more in SRI method in comparison to usual paddy growing methods. Aftercare requirement in SRI method of paddy cultivation was more than the normal paddy growing method.

Findings (Table 2) revealed that the handling of delicate and succulent seedlings during 8-12 days (recommended for SRI method) was the main constraint faced by the farmers during nursery stage to large scale adoption of SRI technology in West Tripura district of the state. The more frequently perceived constraint during transplanting stage was labour requirement (41%). After lifting the seedlings from the nursery bed farmers have to transplant them within thirty minutes for better establishment in the field. As such more labour is required to do the transplanting operation than the normal method of paddy cultivation (Rahman and Dutta 2008). Weed management (65%) is the major constraint faced by the farmers from transplanting to harvesting stage in SRI method of paddy cultivation.

Nearly 64 per cent of the farmers viewed that SRI method of cultivation was cheaper than the traditional method of paddy cultivation as SRI method required less seed, fertilizers and other inputs than the other methods. In overall rating almost (81.50) farmers opined that SRI technology was the superior technology than the traditional system of the paddy cultivation.

## CONCLUSION

Based on the above findings it can be concluded that despite of SRI being

Table 1. Farmers' perception of SRI technology

| Parameter | Response | Rank | Percentage |
|---|---|---|---|
| Labour requirements | | | |
| a) Management of nursery | Very high | II | 14.50 |
| | More than normal | I | 81.00 |
| | Usual | III | 3.50 |
| b) At transplanting | Very high | II | 24.00 |
| | More than normal | I | 69.50 |
| | Usual | III | 6.50 |
| Mortality | | | |
| a) Seedling mortality | More | III | 2.50 |
| | Usual | I | 82.50 |
| | Less | II | 15.00 |
| b) Transplants/crop mortality | More | III | 17.00 |
| | Usual | I | 43.50 |
| | Less | II | 39.50 |
| Weed management | More | I | 93.00 |
| | Usual | II | 5.50 |
| | Less | III | 1.50 |
| Water management | More | II | 42.00 |
| | Usual | I | 54.00 |
| | Less | III | 4.00 |
| Nutrient management | More | II | 31.00 |
| | Usual | I | 63.00 |
| | Less | III | 6.00 |
| Disease incidence rate | More | II | 45.00 |
| | Usual | I | 52.00 |
| | Less | III | 3.00 |
| Insect pest infestation rate | More | I | 49.00 |
| | Usual | II | 44.00 |
| | Less | III | 7.00 |
| After care | More | I | 71.00 |
| | Usual | II | 28.00 |
| | Less | III | 1.00 |
| Cost of cultivation | Cheaper | I | 64.00 |
| | Moderate | II | 22.50 |
| | Costly | III | 13.50 |
| Overall rating of SRI technology | Superior | I | 81.50 |
| | No difference | II | 12.00 |
| | Inferior | III | 6.50 |

Table 2. Farmers' perception of the constraints in large scale adoption of SRI technology

| Crop stage | Constraint | Rank | Percentage |
|---|---|---|---|
| Nursery stage | Intensive care is required | II | 34.50 |
| | Delicate and succulent seedlings | I | 37.00 |
| | Incidence of diseases | III | 15.00 |
| | Damage by insects | IV | 13.50 |
| Transplanting stage | More labour requirement | I | 41.00 |
| | Handling of seedlings | II | 37.00 |
| | Mortality of transplanted seedlings | III | 22.00 |
| Transplanting to harvesting stage | Weed management at regular interval | I | 65.00 |
| | Infestation of insect pests | III | 14.50 |
| | Incidence of diseases | II | 20.50 |

labour intensive and requiring more care and weed management most of the farmers perceived it to be cheaper paddy cultivation technology and accorded overall rating of SRI technology as superior to conventional method of paddy cultivation. These findings open the new avenue of paddy cultivation to the rice growers of the district as well of the state as a whole.

## REFERENCES

Anonymous 2007. System of rice intensification (SRI). Extension Bulletin, Directorate of Agriculture, Govt of Tripura.

Rahman B and Dutta P 2008. System of rice intensification (SRI) technology. Extension Bulletin, Divyodaya Krishi Vigyan Kendra, Chebri, Khowai, West Tripura.

Rao T and Lakshmana K 2007. Performance of SRI in high altitude and tribal zone of Andhra Pradesh, Agricultural Extension Review, Jan-July, pp 28-29.

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