

A STUDY ON KNOWLEDGE LEVEL OF PADDY FARMERS ON SYSTEM OF RICE INTENSIFICATION IN KRISHNAGIRI DISTRICT OF TAMIL NADU

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ABSTRACT: System of rice Intensification is a whole package of agronomic approaches which explain the genetic potential of rice plants to create better growing environment (both above and below ground) to enhance soil health and reduce inputs (seed, water, labor etc.,). In India, more than one million farmers are practicing SRI across almost all the rice cultivating district. System of rice intensification (SRI) is a new approach, now gaining popularity as it is found to increase the productivity and to reduce the cost of cultivation besides saving water use. The specific objectives of the study are to access the information and skill needs of the respondents on SRI technologies. A total number of 120 respondents were selected from ten villages in Krishnagiri district of Tamil Nadu by using proportionate random sampling method. A little more than fifty per cent belonged to medium level of knowledge followed by around two fifth of the respondents with high level of knowledge, while only less one tenth of the respondents fell under low category of knowledge level on SRI technologies. more than fifth per cent of the respondents had knowledge weed management, sowing the seeds, nursery are, irrigation management, transplanting, seed rate, seedling age and preparatory cultivation. Hence, the media atleast a few hours of time to provide information on SRI technologies. Further, the extension workers may concentrate more in dissemination on the SRI technologies especially on seed rate, seedling age, preparatory cultivation, seed treatment and pest management wherein the respondent possessed low level of knowledge.

INTRODUCTION

Rice is one of the most important cereal crop that hold the key towards food for more than 50 per cent of the people living in Asia, where 90 per cent of the worlds rice is grown and consumed. Asia's food security depends largely on the irrigated rice fields, which account for more than 75 per cent of the total rice production (Virk et al., 2004). The increasing water scarcity labour and increasing environment concerns. The prevailing precious situation has given us a wakeup call to develop and popularize innovative water saving technologies to produce more rice crop from every drop of water. There are few options such as zero tillage, direct seedling, aerobic rice and the System of Rice Intensification(SRI) which can help to save water and enhance yield and economies the water use.

RESEARCH METHODOLOGY

The study was conducted in Krishnagiri District of Tamil Nadu. The Krishnagiri district has 10 blocks viz., Bargur, Mallur, Krishnagiri, Kaveripattinam, Uthangarai, Veppanpatti, Hosur, Shoologiri and Kelamangalam. Totally of which Kaveripattinam block was selected as it has the maximum area under SRI cultivation technologies. There are fifteen revenue villages under SRI cultivation in Kaveripattinam block. These revenue village were arranged in descending order based on maximum under of paddy farmers under SRI cultivation. a sample size of 120 respondents were fixed for the study considering the limitation of time and other resources. A total number of 120 respondents were identified from the selected 10 villages by using proportionate random sampling method. The data collected from the respondents through interview schedule were coded, tabulated, analyzed and presented in the form of tables in order to make the findings meaningful and easily understandable.

FINDINGS AND DISCUSSION

Table 1. Knowledge of the respondents on SRI technologies

(n=120)

S.No	Category	Respondents	
		Number	Per cent
1.	Low	23	19.20
2.	Medium	65	54.17
3.	High	32	26.63
Total		120	100.00

It could be observed from the data in Table 1, that majority of the respondents (54.17 per cent) had medium level of knowledge on SRI technologies followed by 26.63 per cent of the respondents with high level of knowledge. It is interesting to note that only 19.20 per cent

of the respondents were with low level of knowledge. A majority of the respondents were found to be in medium category with regard to socio-economic and psychological characteristics. This would have enabled a majority of them to gain medium level of knowledge on SRI technologies. This finding is in line with the findings of Manikandan (2010).

2. Practice wise knowledge level of the respondents on SRI technologies

Forty nine practices were selected for assessing the knowledge level of the respondents on SRI technologies. Results regarding the practice wise knowledge level of the respondents are furnished in Table 2.

Table 2. Practicewise knowledge level of the respondents on SRI technologies

(n=120)

S.No	Technologies	Respondents	
		Number	Per cent
I.	Nursery area		
1.	Nursery area for 1 acre	91	75.83
	Mean percentage		75.83
II.	Nursery bed		
1.	Width of the nursery bed	58	48.33
2.	Height of the nursery bed	63	52.50
3.	No. of nursery beds	67	55.83
	Mean percentage		52.22
III.	Preparation of the nursery beds		
1.	1 st layer	59	49.16
2.	2 nd layer	65	54.16
3.	3 rd layer	58	48.33
4.	4 th layer	59	49.16
	Mean percentage		50.20
IV.	Seed rate		
1.	Use of certified seeds	61	50.83
	Mean percentage		50.83
V.	Seed treatment		
1.	Seed treatment	65	54.16
2.	Application of <i>Pseudomonas flourescens</i>	65	54.16
3.	Quantify of <i>Pseudomonas flourescens</i> / acre	58	48.33
4.	Method of application	52	43.33
5.	Application of <i>Azospirillum</i>	66	55.00
6.	Quantity of <i>Azospirillum</i>	59	49.16
7.	Method of application	65	54.16
	Mean percentage		51.18
VI.	Sowing the seeds		
1.	Covering the seeds	107	89.16
2.	Sprinkling the nursery	98	81.66
	Mean percentage		85.41
VII.	Seedling age		
1.	Age of seedling	69	57.50
	Mean percentage		57.50

VIII.	Preparatory cultivation		
1.	Leveling of field	70	58.83
2.	Maintenance of drainage channel	77	64.16
3.	Leaving paths in the field	45	37.50
	Mean percentage		53.49
IX.	Transplanting		
1.	No. of seedlings to be used	101	84.16
2.	Transplanting with one seedling	103	85.83
3.	Purpose of using one seedling	70	58.33
4.	Purpose of transplanting seedling within half an hour	68	56.66
5.	Use of marker instrument for spacing	97	80.83
6.	Seedling distance	73	60.83
7.	'L' shaped roots under SRI	61	50.83
	Mean percentage		68.21
X.	Irrigation management		
1.	Maintenance of water level from transplantation to tillering stage	98	81.66
2.	Irrigating soil when the soil develops hair line cracks	61	50.83
3.	Maintenance of water level after panicle initiation till maturity	87	72.50
	Mean percentage		68.33
XI.	Weed management		
1.	First weeding	105	87.50
2.	Use of Cono-weeder	101	84.16
3.	Schedule of weeding	93	77.50
4.	No.of weeding	97	80.83
	Mean percentage		82.49
XII.	Fertilizer management		
1.	Application of FYM/ acre	66	55.00
2.	Procedure for livestock penning	69	57.50
3.	Application of tank silt/ acre	63	52.50
4.	Use of leaf colour chart	61	50.83

5.	Application of fertilizers based on leaf colour chart	68	56.66
	Mean percentage		54.49
XIII.	Pest management		
1.	Identification of stem borer symptoms	64	53.33
2.	ETL for stem borer	66	55.00
3.	Control of stem borer	72	60.00
4.	Name of pesticide	58	48.33
5.	Quantity of pesticide/ acre	74	61.66
6.	Method of application	60	50.00
7	Pest surveillance using light traps	65	54.16
8.	No. of light bags/ acre	69	57.50
	Mean percentage		54.50
	Overall mean percentage		66.37

The respondents possessed high level of knowledge only on five major subject matter area viz, sowing the seeds (85.41 per cent), weed management (82.49 per cent), nursery area (75.83 per cent), irrigation management (68.33 per cent) and transplanting (68.21 per cent).

Conclusion

Around two-fifth of the respondents belonged to medium level of knowledge. Hence, the media personnel may apportion at least a few hours time to provide information of SRI technologies. Further, the extension workers may concentrate more on disseminating the required information on the SRI technology especially on seed rate, seedling age, preparatory cultivation, seed treatment, pest management wherein the respondents possessed low level of knowledge.

Reference

1. Manikandan.K. 2010. Information and skill needs of farmers on system of Rice Intensification, Unpublished M.Sc., (Ag.) Thesis, Annamalai University, Annamalainagar.
2. Risk, P.S, Khush, G.S and Peng, So 2004. Breeding to enhance yield potential of Rice at IRRI. The Idotype Approach IRRI. p. 5-9.

