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RESEARCH ARTICLE

A STUDY ON PROFILE OF SYSTEM OF RICE INTENSIFICATION (SRI) PADDY GROWERS IN TIRUNELVELI DISTRICT OF TAMIL NADU

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ABSTRACT

The study was conducted during 2013 in Vasudevanallur block of Tirunelveli district in Tamil Nadu state to assess the profile characteristics of farmers growing SRI paddy. The study was conducted in Vasudevanallur block of Tirunelveli district in Tamil Nadu. A total of 120 respondents were selected, and interviewed using a well structured, pretested interview schedule. In addition to percentage analysis, cumulative frequency, correlation co-efficient and multiple regressions were the statistical tools employed. Majority of the respondents belonged to the old age category and were literates i.e., primary to secondary level of education. Majority of the respondents had agriculture as their secondary occupation and little more than half of the respondents belonged to low level of annual income group. Majority of the respondents had medium level of farming experience (25 years). Majority of the respondents had less than 2.5 acres of area under SRI cultivation. System of Rice Intensification farmers possessed medium level of social participation, scientific orientation, risk orientation, credit orientation, innovativeness, extension agency contact and economic motivation.

INTRODUCTION

Rice is one of the prominent cereal crops in India. It is an important staple food about 50 per cent of the world's population that resides in Asia, where 90 per cent of the world's rice is grown and consumed. India ranked first in area under paddy (41.66 million ha) and second in terms of production (85.31 million tonnes) during 2004-05 and it stood next only to China in the world with respect to rice production. SRI, the system of rice intensification is a system of production of rice. SRI is considered to be a intangible technological breakthrough in paddy cultivation. SRI involves the application 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. This system seems to be promising to overcome the shortage of water in irrigated rice. It was developed in Madagascar in the early 1980s by Father Henride Laulanie, A Jesuit Priest, who spent over 30 years in that country working with farmers. SRI was made known to the Tamil Nadu Agricultural University (TNAU) through an informal email communication from Plant Research International (PRI), Wageningen, in early 2000. The innovative concepts led to an explorative evaluation immediately. The results clearly showed the applicability of wider spacing and non-flood irrigation. At this juncture, PRI initiated a collaborative research project 'Waterless Rice', of which TNAU was part. SRI principles were introduced in the experiments of this project. The result of the first experiment itself threw light on the impact of weeder operation and water saving. There was a significant increase in yield (630 kg ha-1) due to the use of the weeder. Nursery preparations were modified. The package was tested in 100 farmers fields in 2003 through state government and TNAU collaborative initiative to evaluate the performance in comparison with conventional cultivation in two river basins viz. Cauvery (Thanjavur Delta) and Tamiraparani (Tirunelveli). The results showed an average increase in grain yield by 1.5 t ha-1 in both basins. SRI was thus officially recommended for adoption by farmers in 2004. By this time some farmers had already embraced SRI. The study thus aimed to document the profile characteristics of SRI paddy growers in Tamil Nadu.

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MATERIAL AND METHODS

The study was conducted during 2013 in Tirunelveli District of Tamil Nadu. The ex-post facto research design was employed for the study. Data were collected by personal interview with respondents in their farm and home. The target population was farmers practicing SRI method of paddy cultivation. Hundred and twenty respondents were selected for the study. Socio economic characteristics of SRI paddy growers and information on paddy cultivation by the respondents were studied. The data collected were analyzed with the help of statistical tools such as percentage analysis, cumulative frequency, mean and standard deviation were the statistical tools employed.

RESULTS AND DISCUSSION

Nearly two-thirds of the respondents (61.70per cent) were found in the old age category, remaining respondents found to be young and middle age categories. In the study area, majority of the young & middle age respondents were more interested to work in companies and factories than in farm fields. The younger generations considered farming as a laborious job and they wanted to earn more money with less labour and pain. This would be the possible reasons for the involvement young & middle age people had involved less in farming. Majority (79.20 %) of the respondents were literates and their educational level varied from primary to secondary educational level. Secondary level education (37.50 %) followed by primary education (20.00 %) was identified as the predominant educational status of the respondents. Thus, the findings revealed that majority of the respondents were educated. The availability of the higher secondary schools and Arts and Science Colleges in the nearby study area might be the contributing factors. Only one-fourth of the respondents fell under functionally literate to illiterate level of education. Majority (84.20 per cent) of the SRI farmers were practicing agriculture as their secondary occupation. The higher educational level of the respondents and the availability of 10 printing press, companies and factories in the study area were the reasons for the 16.00 per cent of the respondents doing farming as primary occupation. More than half of the respondents (50.80 per cent) belonged to low level of income followed by middle (34.20 per cent) and high level of income (15.00 per cent). Cultivating SRI in less than 2.5 ac by most of the respondents contributed for the low and medium annual income. Majority (71.70 per cent) had medium level of farming experience (25 years). A meager proportion (15.00 %) had high level followed by low level (13.30 %) of farming experience. Thus the finding reveals that, majority of the SRI farmers had medium level of farming experience followed by high and low level of farming experience.

Table 1. Socio-economic characteristics of SRI paddy farmers n=120

Particulars	Categories	Total	
		Frequency	Percentage
Age	Young (up to 35 years)	27	22.5
	Middle (above 35 and up to 45 years)	19	15.8
	Old (above 45 years)	74	61.7
Education	Illiterate	12	10.00
	Functionally literate	13	10.80
	Primary education	24	20.00
	Middle education	15	12.50
	Secondary education	45	37.50
	Collegiate education	11	9.20
Occupation	Agriculture as the Primary occupation	19	15.80
	Agriculture as the Secondary occupation	101	84.20
Annual Income	Low	61	50.80
	Medium	41	34.20
	High	18	15.00
Farming Experiences	Low	16	13.30
	Medium	86	71.70
	High	18	15.00
Area under SRI	Up to 2.5 acres	98	81.67
	More than 2.5 acres	22	18.33

Majority of the respondents (62.80 %) had less than 2.5 acres of area under SRI cultivation followed by 14.10 per cent had more than 2.5 ac area under SRI cultivation. Since most of the farmers had less land holdings, they preferred to cultivate paddy as the main crop extensively. Nearly 82.00 per cent of the respondents who had medium level of social participation and only 17.50 per cent had high level of social participation. Very negligible percentage (00.80 per cent) had low level of social participation. The membership of SRI farmers in farmers association, self-help groups, co-operative milk society, agricultural credit society and panchayat contributed for the high level of social participation. The multiple roles of farmers in farm and home activities, lack of leisure time available to participate in organizational activities, might be the reasons for the low level of social participation. The above findings are in conformity with the findings of Rakesh (2010).

More than 85.00 per cent of SRI farmers possessed medium level of scientific orientation followed by 10.00 and around 6.00 per cent who had high and low level of scientific orientation respectively. The farmer's better contact with extension agency, their inclination towards scientific technologies and high education would have contributed to the present trend in their scientific orientation. Fifty five per cent of the SRI farmers had medium level of risk orientation behaviour, followed by 27.50 percent of the SRI farmers with high level of risk orientation behaviour and the rest 17.50 per cent of the SRI farmers had low level of risk orientation behaviour. In this study the risk orientation behaviour of the SRI farmers were found to be in medium to high level. The interest of the vast farming experience of the old and middle and educated respondents' scientific innovations, better social participation and medium level of social orientation would have made them to face the risk while adopting the SRI techniques. Seventy per cent of the SRI farmers had medium level of credit orientation behavior 20.00 per cent had high level and remaining 10.00 per cent had low level of credit orientation behaviour.

In general it could be inferred that majority of the respondents possessed medium to high level of credit orientation. The difficulties experienced by farmers in getting crop loans from the credit institution, delay in sanctioning of credit, lack of guidance about the availability of loans from credit institution. might be the reasons for having medium to high level of credit orientation. Majority of the respondents (70.00 per cent) had medium level of innovativeness followed by high (20.00 per cent) and low (10.00 per cent) levels. The high level of innovativeness was due to the fact that most of respondents were educated and found to have better scientific orientation, extension agency contact and medium level of economic motivation. Around 60.00 per cent of the SRI farmers had medium level of extension agency contact, followed by 22.50 per cent with low level and 09.20 per cent with high level of extension agency contact. The reason for medium level of contact with extension agencies might be due to the need for technical guidance to understand the risky and complex nature of technologies. This finding derives support from the study carried out by Rakesh (2010) who reported that majority of the farmers had medium level of extension agency contact.

Table 2. Socio-economic characteristics and Information source utilization n=120

Particulars	Categories	Total	
		Frequency	Percentage
	Low	1	00.80
	Medium	98	81.70
Social Participation	High	21	17.50
	Low	7	05.80
	Medium	101	84.20
Scientific orientation	High	12	10.00
	Low	21	17.50
	Medium	66	55.00
Risk orientation	High	33	27.50
	Low	12	10.00
	Medium	84	70.00
Credit orientation	High	24	20.00
	Low	12	10
	Medium	84	70
Innovativeness	High	24	20
	Low	27	22.50
	Medium	82	68.30
Extension agency contact	High	11	09.20

Majority of the SRI farmers (87.50 per cent) had medium to high level of economic motivation behavior and the remaining 12.50 percent of the SRI farmers had low level of economic motivation behaviour. From the above results it could be inferred that, majority of the SRI farmers were under medium to high level of economic motivation behaviour. The interest of the respondents to earn more profit per unit area by adopting SRI practices would have contributed for medium to high level economic motivation.

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