

Attitude of Rice Farmers toward of the System of Rice Intensification (SRI) at Al-Muthanna Governorate in Iraq as Related to Some Variables

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Abstract

The research aimed at identifying the attitudes of rice farmers in Al-Muthanna Governorate towards System of Rice Intensification (SRI) and finding out the relationships between farmers' attitudes and some of their personal and social factors, determining the different levels between the attitude and some variables.

The population studied consisted of all the rice farmers in Al-Muthanna Governorate who had been covered by activities, training, and application of SRI, their numbers reached 2,400 farmers in Rumatha, Warkaa, Majd, and Najmi locations.

A random proportionate sample (5%) was selected, so the sample size became 120 respondents. In order to achieve the objective of the research, a questionnaire form was prepared to collect data from respondents by personal interview method. To achieve the aim, a five-step scale has been used. The highest score on the scale was 393 points, whereas the lowest score was 289 points. The scale involved 90 items with an arithmetic average of 337.65, and a standard deviation of 20.72.

The result showed that the 65% of respondents had a favorable attitude towards the System of Rice Intensification (SRI), 22% of respondents had not formed an opinion, and 13% of respondents had

an unfavorable attitude. Numbers in Table 1 below have been rounded off

Table 1 : Respondents attitude level towards SRI

Attitude	Range of attitudes, in points according to scale	Number	Percentage (%)	Arithmetic average	Standard deviation
Negative	289– 323	16	13.33	337.65	20.72
No attitude	324– 358	26	21.67		
Positive	359– 393	78	65.00		
Total		120	100		

The results indicated that farmer attitudes were favorable towards the transplanting of single seedlings, wide spacing of transplanting, early transplanting, organic fertilizer production and use, green manure, application of intermittent irrigation, hand and mechanical weeding, and implementation of all SRI methods. The percentages of respondents favoring these practices were, respectively, 78%, 58%, 68%, 61%, 62%, 73%, 68%, 58%, and 53%.

Uncertain attitudes toward these practices among respondents were, respectively, 15%, 23%, 22%, 235%, 18%, 18%, 17%, 28%, and 31%.

Unfavorable attitudes towards these respective practices were expressed by 8%, 18%, 9%, 17%, 21%, 9%, 16%, 13%, and 16%, as seen in Table 2 below :

Table(2) : Attitude of AI–Muthanna farmers towards (SRI) practices

No.	Items	Attitude						Average	Ranking according to importance
		Positive		No attitude		Negative			
		No.	%	No.	%	No.	%		
1	Transplanting single seedling	93	77.5	18	15.0	9	7.5	54.16	1
2	Wide spacing between plants	70	58.34	28	23.33	22	18.33	48.00	8
3	Early transplanting	81	67.5	28	23.34	11	9.16	51.66	3
4	Making and using Organic fertilizer	73	60.83	27	22.5	20	16.67	48.33	6
5	Green manure	74	61.67	21	17.5	25	20.83	48.16	7
6	Intermittent irrigation	87	72.5	22	18.34	11	9.16	52.66	2
7	Hand weeding	81	67.5	20	16.67	19	15.83	50.33	4
8	Mechanical weeding	70	58.34	35	28.16	15	12.5	49.16	5
9	All SRI practices together	64	53.34	37	30.83	19	15.83	47.50	9

Result have shown significant differences in respondents' attitudes according to certain variables: education level, size of holding, type of holding, and number of years of rice–growing experience. No significant differences in respondents' attitudes were found according to these variables: age, size of family, participation in agricultural extension activities, and agricultural information sources.

On the basis of the above findings, the researcher recommends:

a) Continue expanding SRI application in rice fields into larger scale by using transplanting machines and making it easier for rice farmers in Iraq to obtain machines which can contribute to saving labor for transplanting of rice seedlings. Also, introduce simple rotary hoes for removing weeds instead of using chemical herbicides, to have less soil and water pollution. b) Establish a special symposium, extension program, and training course about SRI in order to change unfavorable attitudes and solidify undecided attitudes, taking farmers' suggestions into account, and emphasizing useful innovations and intermittent irrigation to reduce water use for rice crops, with also training courses on how to produce organic manure from plants' residues. c) Planting a clover crop instead of wheat between rice crops to enhance the soil's fertility in rice-growing areas.