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Study on perception of adopters and non-adopters about SWI

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Abstract

Cultivation of wheat has been the symbolic of green revolution that played pivotal role in making the nation a food surplus nation. Wheat (*Triticum aestivum* L.) is a member of the gramineae family with chromosome number 42 and a self-pollinated crop. The analysis revealed that 42.67 percent adopters were strongly agree about their perception, 31.56 percent adopters were found agree, 14.44 percent adopters were undecided their perception, 6.44 percent adopters were disagree and 3.56 percent adopters were strongly disagree. The table show that 35.33 percent non-adopters were strongly agree about their perception, 28.67 percent non-adopters were found agree, 13.11 percent non-adopters were undecided their perception, 14 percent non-adopters were disagree and 8.67 percent non-adopters were strongly disagree. Conclusion: Identifying suitable varieties and location for adoption of SWI and Promotion of community based nurseries. Organizing training programmers for the trainers, farmers and farm laborers.

Keywords: Perception, adopters, non-adopters, system of wheat intensification

Introduction

Cultivation of wheat has been the symbolic of green revolution that played pivotal role in making the nation a food surplus nation. Wheat (*Triticum aestivum* L.) is a member of the gramineae family with chromosome number 42 and a self-pollinated crop. Wheat contributes more calories (20%) and more protein to the world's diet than any other food crop. Before 1960s only traditional varieties of wheat were cultivated. Those varieties were tall, suited to low management with low yield potential. The turning point in the history of the wheat came after 1963 with the introduction of dwarf, photo-insensitive, high yielding Mexican wheat breeding materials (Norin Gene) developed by Dr. Norman E. Borlaug. Traits such as increased number of fertile florets, length and density of spike, reduction of shattering, disease resistance and greater responsiveness to fertilizer with lodging were also found in these Mexican varieties. Introduction of semi dwarf varieties increased the consumption of fertilizer per unit area tremendously and promoted mechanization in agriculture. In one side it increased the overall production and postponed the near seen dangerous cloud of the great famine due to population explosion in the third world where there was very low growth rate of crop production as compared to population growth. However in long term advantages of green revolution were taken only by developed country and farmers who were fortified by irrigation, mechanization and high agro inputs. But at initial decades of 21st century another probability of great famine appeared in the world due to long drought in tropical and subtropical and at the same time it appeared more dangerously because most of the developed countries adopted policies of using consumable grains into bio fuel production. Therefore, another very serious initiative was needed to increase the productivity of major crop in the very marginal land with low input and sustainable way. In this context, in many parts of the third world System of Wheat Intensification created government attention. Among winter crops, it contributes nearly about 49 percent of food grains. Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, Rajasthan, Bihar, Maharashtra, Gujarat, Karnataka, West Bengal, Uttarakhand and Himachal Pradesh are the main wheat producing states of India. Keeping in this view I was selected the objective about perception and attitude of the respondents about SWI method of wheat.

(1) To ascertain the Perception of selected adopters and non-adopters respondents about SWI.

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Research Methodology

The state of Bihar is having 38 districts. Out of these districts Samastipur district was selected purposively. All together there are 20 Blocks in Samastipur district. Out of which Pusa and morwa block has been selected for study purpose based on assumption that the block has the largest number of adopters of SWI technology. There are 13 Panchayats in Pusa block. Out of which two Panchayats were selected viz., Thahara and Morsand for the study purpose. Two villages were selected Thahara and Morsand. There are 18 Panchayats in Morwa block. Out of which two Panchayats were selected viz., Indarwara and Sarangpur selected for the study purpose. Two villages were selected Indarwara and Sarangpur. Therefore 30 beneficiaries and 30 non-beneficiaries respondents were selected. The total number of beneficiaries and non-beneficiaries were selected for the study and thus constituted 60 respondents.

For the present study an operational measure for perception was developed by formulating a teacher made perception. The perception was formulated based on packages and practices require for wheat cultivation by signed with Scientists and advisory committee. Perception of respondents towards Improved System of Wheat Intensification (SWI) technology. Perception is the organisation, identification and interpretation of sensory information in order to represent and understand the environment. The Perception of the

respondents against each statement was ascertained on a 5-point continuum index in terms of their strongly agree or strongly disagree. The respondents were asked to indicate whether they strongly agree or disagree or are undecided with the given statement. In case of positive statements, scores of 5, 4, 3, 2, and 1 were assigned for strongly agree, Agree, undecided, Disagree, and strongly disagree responses, respectively. In case of negative statements, scores of 1, 2, 3, 4, and 5 were assigned for strongly disagree responses, Disagree, undecided, agree and strongly agree responses, respectively.

The attitude of the respondents was further categorized as under by working out mean and standard deviation.

Favourable : Above (Mean + S.D.)
 Undecided : From (Mean – S.D.) to (Mean + S.D.)
 Unfavourable : Below (Mean – S.D.)

Results and Discussion:

Based on the responses given by the adopters to each of statements, the total score of each respondent was calculated. On the basis of total score obtained, the respondents were categorized by working out frequency and percentage into five groups viz. strongly agree, agree, undecided, disagree and strongly disagree.

Table 1: Percentage distribution of adopters with respect to their perception:

A.	Farmers perception	SA	A	UD	DA	SDA
i	New methods of farming give better resulting to farming than the old method	15 (50)	9 (30)	6 (20)	0	0
ii	The farming methods used by forefathers are still best methods of farming today	3 (10)	12 (40)	6 (20)	4 (13.33)	5 (16.67)
iii	Even a farmer with lot of old experience should use new methods of farming	18 (60)	9 (30)	3 (10)	0	0
iv	Though it takes time for a farmer to learn new methods in farming it is worth the efforts.	21 (70)	6 (20)	3 (10)	0	0
v	A progressive farmer experiments with new ideas in farming.	12 (40)	8 (26.66)	10 (33.33)	0	0
vi	Traditional methods of farming have to be changed in order to raise the level of living of the farmer.	11 (36.66)	9 (30)	6 (20)	4 (13.33)	0
B.	Risk preference scale					
i	A farmer should grow large no of crops to avoid greater risks involved in growing one or two crops	8 (26.66)	6 (20)	6 (20)	5 (16.67)	5 (16.67)
ii	A farmer should take more of a change in making big profits than to be content on the smaller but less risky profits	9 (30)	5 (16.67)	7 (23.33)	6 (20)	3 (10)
iii	A farmer who is willing to take greater risks than the average farmer usually does better financially	6 (20)	12 (40)	3 (10)	3 (10)	0
iv	It is good for a farmer to take risks when he know his chances of success is fairly high	8 (26.67)	12 (40)	6 (20)	2 (6.67)	2 (6.66)
v	Trying an entirely new method in farming by a farmer involves risk but it is worth	9 (30)	15 (50)	3 (10)	2 (6.66)	1 (3.34)
C.	Economic motivation scale					
i	A farmer should work towards large yields and economic profits	18 (90)	12 (40)	0	0	0
ii	The most successful farmer is one who makes greater profit	24 (80)	6 (20)	0	0	0
iii	A farmer should try any new farming idea which may earn him more money	21 (70)	9 (30)	0	0	0
iv	A farmer should grow cash crops to increase monetary profits in comparison to food crops for home consumption	9 (30)	12 (40)	6 (20)	3 (10)	0
	Total	192	142	65	29	16
	Percentage	42.67	31.56	14.44	6.44	3.56

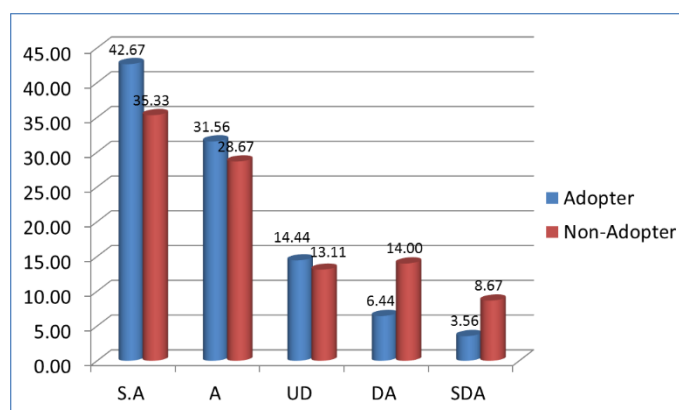
The table-1 show that 42.67 percent adopters were strongly agree about their perception, 31.56 percent adopters were found agree, 14.44 percent adopters were undecided their

perception, 6.44 percent adopters were disagree and 3.56 percent adopters were strongly disagree.

Table 2: Percentage distribution of non- adopters with respect to their perception:

A. Farmers perception		SA	A	UD	DA	SDA
i	New methods of farming give better resulting to farming than the old method	3 (10)	6 (20)	3 (10)	12 (40)	6 (20)
ii	The farming methods used by forefathers are still best methods of farming today	12 (40)	8 (26.66)	4 (13.33)	3 (10)	3 (10)
iii	Even a farmer with lot of old experience should use new methods of farming	5 (16.66)	9 (30)	3 (10)	6 (20)	7 (23.33)
iv	Though it takes time for a farmer to learn new methods in farming it is worth the efforts.	15 (50)	7 (23.33)	5 (16.66)	3 (10)	0
v	A progressive farmer experiments with new ideas in farming.	9 (30)	3 (10)	4 (13.33)	8 (26.66)	6 (20)
vi	Traditional methods of farming have to be changed in order to raise the level of living of the farmer.	8 (26.66)	7 (23.33)	4 (13.33)	9 (30)	3 (10)
B. Risk preference scale						
i	A farmer should grow large no of crops to avoid greater risks involved in growing one or two crops	12 (40)	6 (20)	4 (13.33)	3 (10)	3 (10)
ii	A farmer should take more of a change in making big profits than to be content on the smaller but less risky profits	9 (30)	7 (23.33)	4 (13.33)	6 (20)	4 (13.33)
iii	A farmer who is willing to take greater risks than the average farmer usually does better financially	13 (43.33)	6 (20)	3 (10)	6 (20)	2 (6.67)
iv	It is good for a farmer to take risks when he know his chances of success is fairly high	15 (50)	5 (16.67)	3 (10)	4 (13.33)	3 (10)
v	Trying an entirely new method in farming by a farmer involves risk but it is worth	18 (60)	8 (26.66)	4 (13.33)	0	0
C. Economic motivation scale						
i	A farmer should work towards large yields and economic profits	12 (40)	18 (60)	0	0	0
ii	The most successful farmer is one who makes greater profit	9 (30)	15 (50)	6 (20)	0	0
iii	A farmer should try any new farming idea which may earn him more money	13 (43.33)	12 (40)	5 (16.66)	0	0
iv	A farmer should grow cash crops to increase monetary profits in comparison to food crops for home consumption	6 (20)	12 (40)	7 (23.33)	3 (10)	2 (6.66)
Total		159	129	59	63	39
Percentages		35.33	28.67	13.11	14.00	8.67

The table-2 show that 35.33 percent non-adopters were strongly agree about their perception, 28.67 percent non-adopters were found agree, 13.11 percent non-adopters were undecided their perception, 14 percent non-adopters were disagree and 8.67 percent non-adopters were strongly disagree. It is also presented in graphical view:



Summary and Conclusion

With respect to perception of various components of SWI technology found that 42.67 percent adopters were strongly agree about their perception, 31.56 percent adopters were found agree, 14.44 percent adopters were undecided their perception, 6.44 percent adopters were disagree and 3.56 percent adopters were strongly disagree. In other hand, 35.33 percent non-adopters were strongly agree about their perception, 28.67 percent non-adopters were found agree,

13.11 percent non-adopters were undecided their perception, 14 percent non-adopters were disagree and 8.67 percent non-adopters were strongly disagree.

Suggestions: Suggestion for future research

1. Identifying suitable varieties and location for adoption of SWI.
2. Promotion of community based nurseries. Organizing training programmers for the trainers, farmers and farm laborers.
3. Give financial support to research on improving management practices, tools and economic evaluation at farm level.
4. Promote direct seeding with a drum seeder and machine planting (with suitable modifications) where labour scarcity limits SWI adoption.

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