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ADOPTION BEHAVIOUR OF FARMERS TOWARDS WHEAT VARIETY SHUATS W-6, IN HOLAGARH BLOCK OF PRAYAGRAJ DISTRICT, UTTAR PRADESH

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Abstract: ***India is an agrarian based country with two third of population as farming community. Wheat, 'King of cereals' also the second most cultivated food crop has technological gap in adoption of improved variety, hence the present study aims to understand the socio-economic profile, knowledge, attitude and adoption level of respondents to identify the technological gap and increase the adoption rate. The present study is carried out with 120 respondents from ten villages of Holgarh block of Prayagraj district of Uttar Pradesh. Primary data collected with the help of semi-structured interview schedule and subjected to statistical analysis. The results indicated that majority of the wheat growers had medium level of knowledge, attitude and adoption towards SHUATS W-6 variety. Further, it was recommended for timely availability of seeds, fertilizer, proper marketing facility and reducing the cost of critical inputs.***

Keywords: Wheat growers, SHUATS, Knowledge, Attitude, Adoption.

Introduction

Agriculture is the predominant sector of Indian economy and contributes 18 per cent to GDP. Wheat (*Triticum aestivum*) the world's largest cereal crop belongs to Graminae (Poaceae) family of the genus Triticum. It has been described as the "King of cereals" because of the acreage it occupies, high productivity and the prominent position in the international food grain trade (Anvesha*et al.* 2020). Wheat is the second most important food crop of the India which contributes nearly one-third of the total food grains production. About 84.00 per cent of the total

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production of wheat is confined to Uttar Pradesh, Punjab, Madhya Pradesh, Rajasthan, Haryana and Bihar. The average yield of wheat in India is 2.87 t/ha which is very low as compared to other countries. Wheat is the most extensively grown cereal crop in the world, covering about 237 million hectares annually, and accounting for a total of 420 million tones.

Target for wheat output has been kept at 106.5 million tonnes, same at the current level estimated for the 2019-20 crop year. Uttar Pradesh is the largest state with maximum contribution towards national production (35.03%) from a large area (35.12 %), but with productivity on a lower side of 2.7 tonnes/ha. (Anvesha *et al.* 2020). Uttar Pradesh has registered the highest-ever wheat produce in the year 2017-18, revealed officials in the agriculture department. The wheat production data of agricultural directorate shows that in the year 2017-18 total production was 357.19 lakh MT which indicated 7.50 lakh MT more than the production of previous year.

The credit of the record production and productivity goes to continuous Government efforts, balanced monsoon as well as creating awareness and advanced scientific production practices among the farmers with a target to double the income of the farmers by 2022 (Parashar 2018). The production of wheat in Prayagraj is 469115 MT. (Contingency plan of Prayagraj District). The productivity of wheat in Prayagraj is 22.19 q/ha (Contingency plan of Prayagraj District).

Vipin (2011) stated that most of the wheat growers were middle aged, had middle school, small farmers, medium level of social participation, medium level of socio-economic status, medium level of attitude, medium level of mass media exposure, risk preference; medium and high level of innovativeness with medium level of knowledge on wheat cultivation practices. Raghuwanshi (2012) reported that in case of (beneficiaries) wheat growers, the majority of respondents had medium and high level of adoption in respect of wheat production technology.

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Mohanty *et al.*, (2013) revealed that highest proportion of the respondents were in young age group.

Rahman(2013) reported a positively and significantly correlated between adoption level of the respondents about selected wheat production technologies and the independent variables like education, farm experience and extension contact. Kant et.al., (2013) reported that majority of the wheat growers exhibited a medium level of adoption category. Wadge (2017) revealed that independent variables, namely, farming experience, education, extension contact and risk orientation had positively and significantly correlated with the adoption level; whereas, farming experience, education, social participation and risk orientation status had significant effect on adoption level of the respondents about kharif maize production technology.

Karangami (2017) revealed that three-fourth of the respondents had medium knowledge level. Whereas, Patodiya (2018) reported that nearly two-third per cent of the respondents had medium knowledge level about scientific wheat cultivation practices. Bose *et al.*,(2019) reported that socio-economic characteristics of the sample group were medium level with medium level of adoption. Smriti et.al., (2020) reported that regarding financial constraint, unregulated marketing facility was perceived as the major constraint, followed by high cost of wages, high cost of chemicals and equipments, less risk bearing capacity of farmers and enhanced labor wage rates. With respect to administrative constraints, lack of technical knowhow of the staff was perceived as important constraint followed by irregular visits of the staff during crop season, barriers in the distribution of required varieties and seed and inefficient extension workers.

Research Methodology

For present study, descriptive research design is adopted. Prayagraj district of Uttar Pradesh is selected by purposive sampling since maximum farmers produce wheat crop. Out of 20 blocks in Prayagraj district of Uttar Pradesh, Holagarh block of Soraon tehsil has been selected by purposive sampling because most of the farmers are adopting SHUATS W-6 variety

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cultivation. Among 92 villages of Holagarh, 10 villages were selected purposively based on the maximum area covered under SHUATS W-6 variety. From each village, 12 respondents will be selected. Thus from the selected 10 villages, 120 respondents will be selected randomly for the study. The primary data were collected with the help of interview schedule and the responses were recorded, classified and tabulated and appropriate statistical tools were employed.

Results and Discussion

The socio-economic profile of the respondents was studied under various characteristics and the results were presented under table.1.

Table.1. Socio-economic profile of the respondents (n=120)

S. No.	Characteristics	Category	Frequency	Percentage
1	Age (in years)	Young (<35)	40	33.30
		Middle(36-55)	46	38.40
		Old (>55)	34	28.30
2	Education	Illiterate	25	20.83
		Literate (can read only)	18	15.00
		Primary school	20	16.66
		Middle school	7	5.83
		High school	18	15.00
		Intermediate	22	18.33
		Graduate and above	8	6.67
3	Communication media exposure	Low	51	42.50
		Medium	57	47.50
		High	12	10.00
4	Working experience	Less than 3 years	30	25.00
		3-10 years	65	55.00

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		More than 10 years	24	20.00
5	Family size	Small	34	28.33
		Medium	57	47.50
		Large	29	24.17
6	Land holding	Marginal farmer (Less than ha)	30	25.00
		Small farmer (1-2 ha)	65	55.00
		Large farmer (2-3 ha)	24	20.00
7	Annual income	Low (upto 50,000)	14	11.70
		Medium (50,000 – 1 lakh)	98	81.70
		High (above 1 lakh)	8	6.60
8	Mass media exposure	Low	35	29.17
		Medium	73	60.83
		High	12	10.00
9	Leadership capacity	Low	29	24.17
		Medium	77	64.17
		High	14	11.67
10	Social participation	Low	21	17.50
		Medium	59	49.17
		High	38	31.67

From table.1, it can be interpreted that majority of the respondents were middle aged (38.40%), followed by young aged (33.30%) and old aged people (28.30%). Most of the respondents were illiterate (20.83%), followed by intermediate level (18.33%), primary school (16.67%), an equal percentage of respondents were literate (can read only) (15%) and high school (15%), graduate (6.67%), middle school (5.83%) and only 1.67 per cent of respondents had post-graduate level of education. Less than half of the respondents had medium level of family size (47.50%), followed by small sized family (28.33%) and large sized family (24.17%).

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More than three-fourth of the respondents earns medium level of annual income (81.70%), followed by low (11.70%) and high (6.60%) level of annual income. Less than two-third of the respondents had medium level of mass media exposure (60.83%), followed by low (29.17%) and high level of mass media exposure (10%).

Meanwhile, more than half of the respondents were small farmer (1-2 ha) (55%), followed by small farmer (less than 1 ha) (25%) and remaining 20 per cent of respondents were large farmer (2-3 ha). Majority of the respondents had medium level of leadership capacity (64.17%), followed by low (24.17%) and high (11.67%) level of leadership capacity. Nearly half of the respondents (49.17%) had medium level of social participation, followed by high (31.67%) and low (17.50%) level of social participation. More than half of the respondents had 3-10 years working experience (55%), followed by less than 3 years working experience (25%) and only 20 per cent had more than 10 years of working experience. Majority of the respondents had medium level of communication media exposure (47.50%), followed by low level (42.50%) and low (10%) level of communication media exposure.

The knowledge level of respondents towards SHUATS W-6 wheat variety is tabulated and presented in table.15 and fig.15.

Table.2. Knowledge of respondents towards improved SHUATS W-6 wheat variety

(n=120)

S. No.	Knowledge level	Frequency	Percentage
1	Low	39	32.50
2	Medium	51	42.50
3	High	30	25.00

From table.2, it was reported that most of the respondents (42.50%) had medium level of knowledge, followed by low (32.50%) and high level of knowledge (25%)

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The attitude level of respondents towards SHUATS W-6 wheat variety is tabulated and presented in table.16 and fig.16.

Table.3. Attitude level of respondents towards improved SHUATS W-6 wheat variety

(n=120)

S. No.	Attitude level	Frequency	Percentage
1	Low	26	21.67
2	Medium	59	49.17
3	High	35	29.17

From table.3, it was reported that nearly half of the respondents had medium level of attitude (49.17%), high level of attitude (29.17%) and medium level of attitude (21.67%) towards improved SHUATS w-6 variety.

The adoption level of respondents towards SHUATS W-6 wheat variety is tabulated and presented in table.4 and fig.4.

Table.4. Adoption of respondents towards improved SHUATS W-6 wheat variety

(n=120)

S. No.	Adoption level	Frequency	Percentage
1	Low	34	28.33
2	Medium	57	47.50
3	High	29	24.17

From table.4, it was reported that nearly half of the respondents had medium level of adoption (47.50%), followed by low (28.33%) and high level of adoption (24.17%) towards SHUATS W-6 variety.

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Conclusion

From the study it can be understand that majority of the respondents were middle aged, illiterate, had medium level of family size, earns medium level of annual income, had medium level of mass media exposure, small farmer (1-2 ha), medium level of leadership capacity, medium level of social participation, medium level of working experience and medium level of communication media exposure with medium level of knowledge, attitude and adoption. Thus, it was recommended that full time electricity should be provided at the time of irrigation and made it priority suggestion, credit should be available easily at low interest rate, improved seed should be available in time, irrigation facilities should be available in time, training camps regarding technical knowledge should be organized time to time, knowledge regarding plant protection should available in time, fertilizer availability should be in time, field visit should be made regularly by extension workers and agricultural officers.

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