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IMPACT OF SOCIO ECONOMIC VARIABLES ON KNOWLEDGE OF WHEAT PRODUCTION TECHNOLOGY

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ABSTRACT*: The study was carried out during the year 2015-2016 in Rasoolabad and Rajpur block from Kanpur Dehat, Mohanlalganj and Chinhat block from Lucknow district of Uttar Pradesh. The total sample size was of 160 wheat growers for the present study. The responses of farmers were collected through a comprehensive schedule developed by the researcher in consultation with the experts. An interview schedule was prepared on the basis of pilot study with the help of concerned scientists and later interview schedule was revised in the suggestions made by them. There is a non- significant association between the education and knowledge level of the respondents. significant at 4 degree of freedom, hence it can be said that there is a significant association between socio-economic with knowledge level of farmers It may be concluded on the basis of finding that the statistical analysis about the association between ages with knowledge level of respondents shows significant association and significant association between land holding and knowledge level of farmers about wheat production technology.

Keywords: Impact, Socio economic variables, Knowledge, Production technology

INTRODUCTION:

Wheat is the world's most favored staple food crop. Wheat provides more nourishment for humans than any other source. De Condole believed that wheat originated in the Valley of Euphrates and Tigris and spread from there to china, Egypt and other parts of the world. Tritium aestivum (wheat) is the type presently grown in India in almost all the wheat growing zones. This wheat is introduced in India by Dr. N.E. Borlaug of Mexico and the wheat is frequently said to be the Mexican dwarf wheat. The first variety having short plant height, lodging resistance

and higher grain yield was "Norin10" that was brought to U.S.A. by Dr. S.C. Salmon in 1948 from Japan. Wheat (*Triticum aestivum* L.) is one of the most important cereal crops grown in the Indo-Gangetic Plains and central India. India is the second largest wheat producer 93.51 million tonnes next only to China 121.72 million tonnes and covers the largest area under wheat cultivation (29.65 m ha), which is about 13.77 % of the world wheat area 217 million hectare

In India, Uttar Pradesh ranks first in respect to area 9.73 million hectare and production 29.5 million tones but the average productivity 3113 kg/ha is much lower than Haryana 5030 kg/ha and Punjab 4898 kg/ha

Since independence, attempts have been made to improve agricultural production activity and living standards of farmers through introduction of several programmes and projects related to agriculture, for instance, IADP, HYV, MFDA, SFDA, Training & visit etc. Similarly training units have been set up to impart training to farmers on various dimensions and related aspects. Despite best efforts through these training units, the desired outcomes have not been yet achieved, although tremendous development in agriculture sector has taken place. However, there is still need for further improvement. The low agricultural productivity particularly among small and marginal farmers who from the bulk of farming community are the probable indication of low adoption of farm technology which, in turn speaks of poor skill and knowledge of the farmers and also may be poor or ineffective communication skill of change agents. This may be resultant of poor link ages between the three system i.e., research, extension and client system. This is evident from the fact that hardly 25 to 40 percent of technologies have gone to farmers. The reasons may be several such as in appropriate technology, inputs constraints, lack of

knowledge, in adequacy of technology transfer system etc. It is very difficult to pin point particularly reasons responsible for poor adoption. But one factor, which is widely accepted, is that the transfer of technology system should be effective and efficient and for that change agents need to be equipped with the latest knowledge of subject matter. There for The present study was carried out to study of knowledge gap and constraints analysis of wheat production technology in Central Uttar Pradesh Research scholar/investigator. However, considerable care and thought were exercised in making the study as systematic as possible. Further, the study takes into account of wheat cultivation (package of practices). Moreover the present study was confined to C.D. Block, Rasoolabad and Rajpur, district Kanpur Dehat and C.D. Block, Mohanlalganj and Chinhat, district Lucknow of Uttar Pradesh. So the findings emanating from the study would be valid and applicable in areas where similar agro-climatic condition prevails**.**

MATERIAL AND METHODS:

The study was carried out in Rasoolabad and Rajpur block from Kanpur Dehat, Mohanlalganj and Chinhat block from Lucknow district of Uttar Pradesh. From each block four villages and from each village 10 respondents were selected on the basis of maximum area under wheat growers. Thus, the total sample size was of 160 wheat growers for the present study. The responses of farmers were collected through a comprehensive schedule developed by the researcher in consultation with the experts. An interview schedule was prepared on the basis of pilot study with the help of concerned scientists and later interview schedule was revised in the suggestions made by them.

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Chi square:

The X^2 test (pronounced as chi-square test) is one of the simplest and most widely used non – parametrical test in statistical work. The symbol X^2 is the Greek letter chi. X^2 test was first used by "Karl Pearson" in the year 1900. The quantity X^2 describes the magnitude of the discrepancy bet been theory and observation. It is defined as

$$X^2 = \sum \frac{(O-E)^2}{E}$$

Where

O= Observation frequency

E= Expected frequency

RESULTS AND DISCUSSION:

Table- 1: Association between age and knowledge level of respondents.

S .No.	Age	Level of knowledge score			Total	X^2 value
		Poor (0-10)	Fair (11-20)	Good (above 20)		
1.	Young	5	16	03	24 **(15.00%)**	31.94*
2.	Middle	4	17	29	50 **(31.25%)**	
3.	Old	6	15	65	86 **(53.75%)**	
	Total	**15**	**48**	**97**	**160**	

X^2 (tab) at 5% at 4 d. f. = 9.488
*Significant at 0.05 level of probability

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The above table- 1, Indicates that majority i.e. majority 53.75 percent respondents belong to the age group of above 55 years. While, 31.25 percent respondents belong to the age group 46 to 55 years followed by 15.00 percent respondents having age group of up to 45 years (young).

Statistical analysis about the association below each age with knowledge level of respondents shows that calculated value of X^2 is 31.94, which is higher than the table value of X^2 (9.488) at 5% level of significant at 4 degree of freedom, hence there is a significant association between age and knowledge level of respondents about wheat production technology.

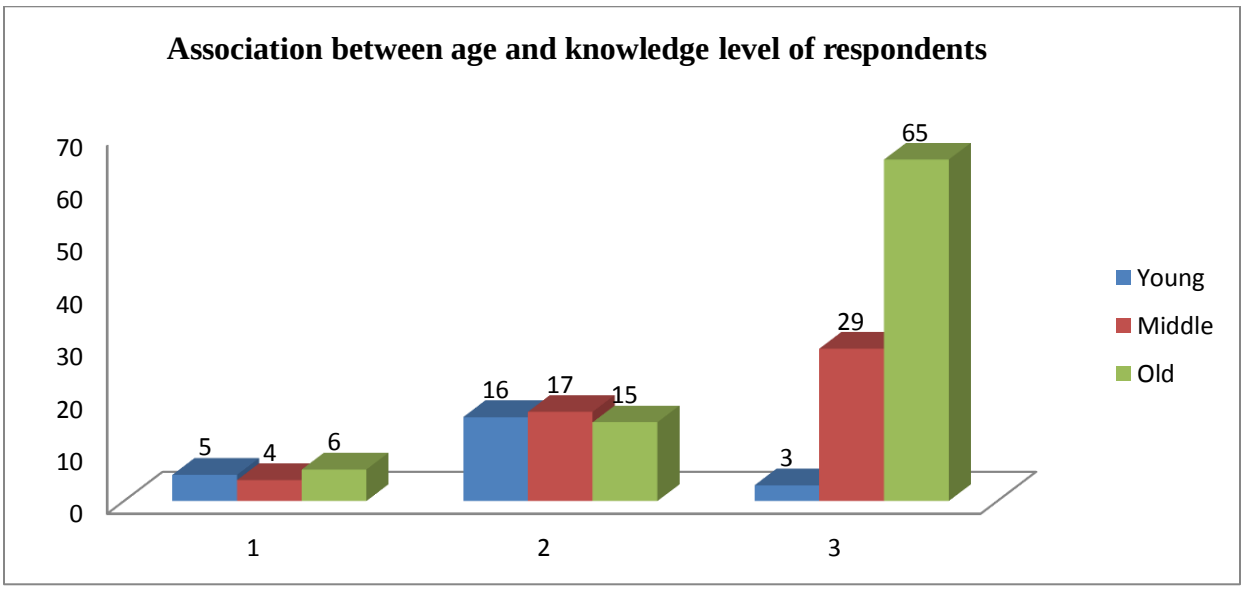

Table- 2: Association between education and knowledge level of respondents.

S.No.	Education	Level of knowledge score			Total	X^2 value
		Poor (0-10)	Fair (11-20)	Good (above 20)		
1.	Illiterate	5	11	25	41 **(25.63%)**	8.51
2.	Junior High school	2	14	22	38 **(23.75%)**	
3.	High school	2	9	22	33 **(20.62%)**	
4.	Intermediate	3	5	10	18 **(11.25%)**	
5.	Graduation and above	3	9	18	30 **(18.75%)**	
	Total	**15**	**48**	**97**	**160**	

X^2 (tab) at 5% at 8 d. f. = 15.507
Non significant at 0.05 level of probability

The above table- 2, Indicates that majority i.e. majority of respondents 25.63 percent are illiterate followed by literate as a Junior High school 23.75 percent, High school 20.62 percent, Graduation above 18.75 percent, Intermediate 11.255 percent respectively.

Statistical analysis about the association below each education with knowledge level of respondents shows that calculated value of X^2 is 8.51, which is lower than the table value of X^2 (15.507%) at 5% level of significant at 8 degree of freedom, hence there is a non- significant association between the education and knowledge level of the respondents about wheat production technology.

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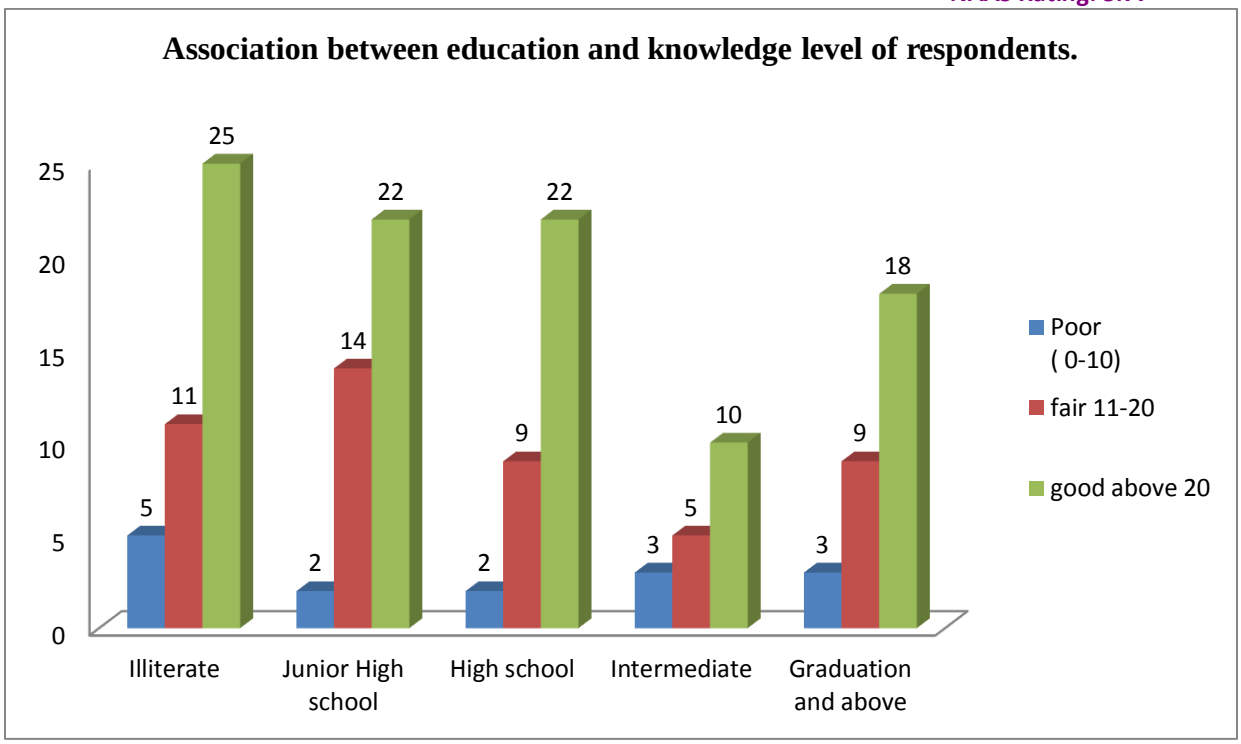

Table- 3: Association between land holding and knowledge level of respondents.

S.No.	Land Holding	Level of knowledge score			Total	X^2 value
		Poor (0-10)	Fair (11-20)	Good (above 20)		
1.	Marginal and Small	9	40	87	136 **(85.00%)**	16.44*
2.	Medium	3	6	7	16 **(10.00%)**	
3.	Big	3	2	3	8 **(5.00%)**	
	Total	**15**	**48**	**97**	**160 (100.00%)**	

X^2 (tab) at 5% at 4 d. f. = 9.488
*Significant at 0.05 level of probability

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The above table- 3, indicates that majority 85.00 percent of the respondents is having marginal and small land holding followed by 10.00 percent respondents belong to medium category of land holding, whereas, only 5.00 percent respondents have more than 4 ha. of land holding (big).

It is clear from the statistical analysis about the association between land holding and knowledge level of farmers shows that calculated value of X^2 is 16.44, which is higher than the table value of X^2 (9.488) at 5% level of significant at 4 degree of freedom, analysis shows that there is a significant association between land holding and knowledge level of farmers about wheat production technology.

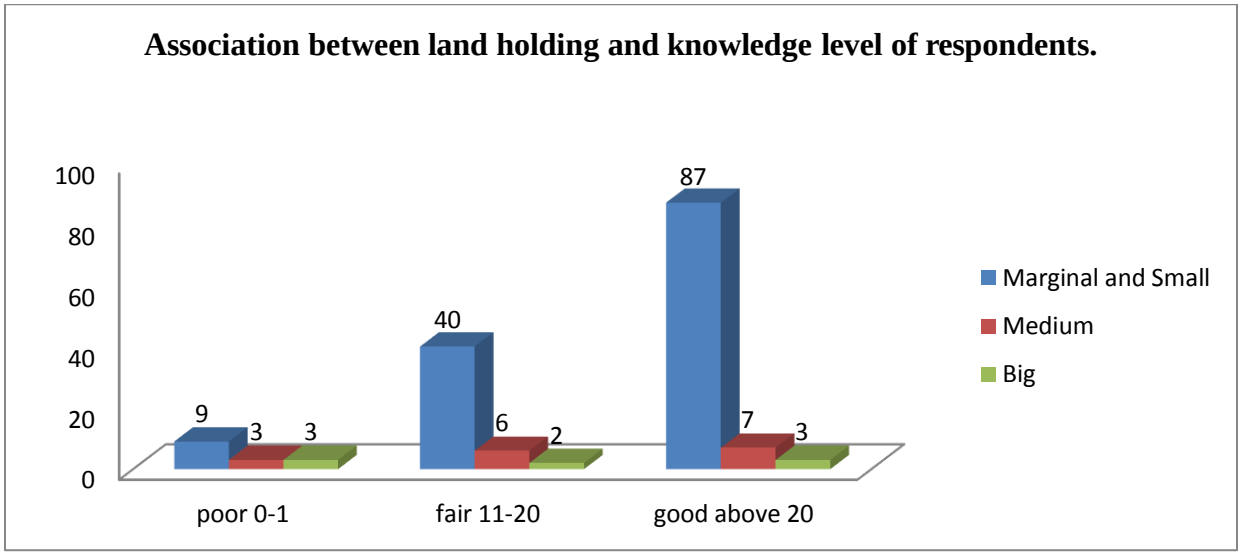

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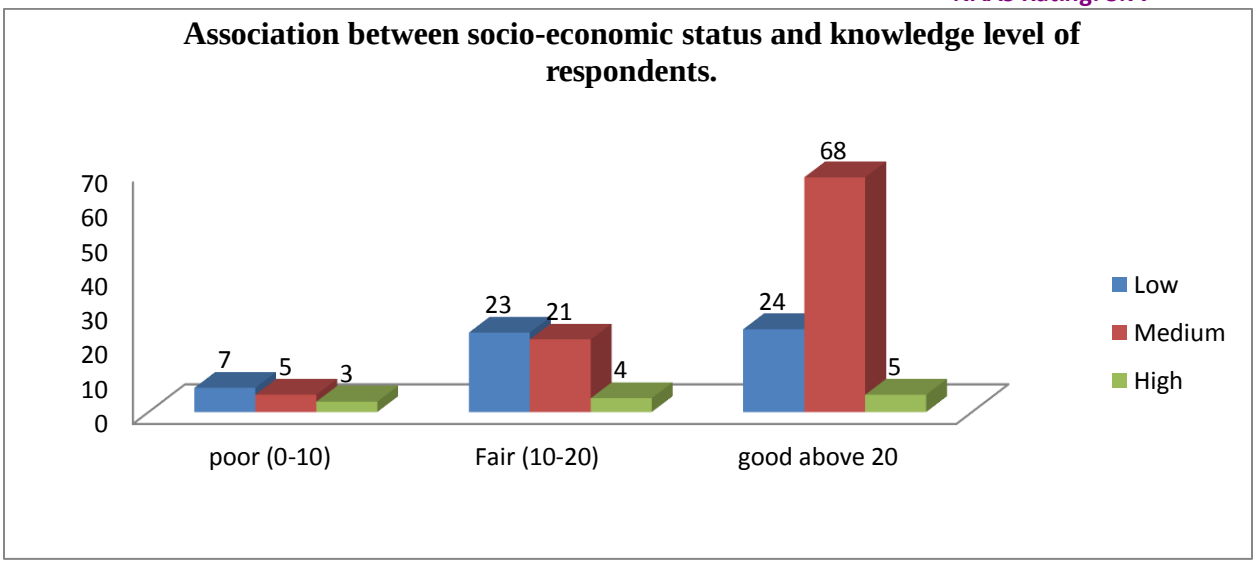
Table- 4: Association between socio-economic status and knowledge level of respondents.

S.No.	S.E.S	Level of knowledge score			Total	X^2 value
		Poor (0-10)	Fair (11-20)	Good (above 20)		
1.	Low	7	23	24	54 **(33.75%)**	16.31*
2.	Medium	5	21	68	94 **(58.75%)**	
3.	High	3	4	5	12 **(7.50%)**	
	Total	**15**	**48**	**97**	**160 (100.00%)**	

X^2 (tab) at 5% at 4 d. f. = 9.488
*Significant at 0.05 level of probability

The above table- 4, indicates that majority 58.75 percent of respondents belong to medium socio-economic status followed by 33.75 percent belong to low socio-economic status, while only 7.5 percent respondents possess high category of socio-economic status.

Statistical analysis about the association between socio-economic status with knowledge level of respondents shows that calculated value of X^2 is 16.31, which is higher than the table value of X^2 (9.488) at 5% level of significant at 4 degree of freedom, hence it can be said that there is a significant association between socio-economic with knowledge level of farmers with reference to wheat production technology.



CONCLUSION:

It may be concluded on the basis of finding that the statistical analysis about the association between ages with knowledge level of respondents shows significant association between age and knowledge about wheat production technology, significant association between land holding and knowledge level of farmers, significant association between socio-economic with knowledge level of farmers with reference to wheat production technology. Statistical analysis about the association between educations with knowledge level of respondents shows non- significant association between the education and knowledge level about wheat production technology.

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