The Pharma Innovation

Akash Kumar Maurya
M.Sc. Agricultural Economics,
Research Scholar, SHUATS,
Prayagraj, Uttar Pradesh, India

Dr. Ramchandra
Assistant Professor,
Department of Agricultural
Economics, SHUATS,
Prayagraj, Uttar Pradesh, India

Transfer of technology constraints adoption through Krishi Vigyan Kendra in district Mau of Uttar Pradesh

Akash Kumar Maurya and Dr. Ramchandra

Abstract
Agriculture is the mainstay sector of the country's economy. Now a day's various technologies, innovative ideas have ensured the development of agriculture. The farmers are not following the newer as well as innovative practices because of the lack of interest, lack of awareness and lack of training on the particular technology. Every agricultural Scientists try to reduce the farmer's problem, even though lacks are there, to transfer the technology from the lab to land. Krishi Vigyan Kendra is India's innovative institution to transfer the technology at the grass root level. The study was taken up in Mau district of Uttar Pradesh. A total of 90 respondents were selected by using proportionate random sampling technique. Keeping in this view, the study was focused and finally, an attempt has been made to identify the constraints faced by the adopter and non adopter farmers in adopting the recommended practices. The specific objectives of this study are to delineate the constraints to adopter and non adopter farmers. Constraints were categorized under various components viz. general constraints, biophysical constraints, technological constraints, and other constraints. Among constraints related to adopter farmers poor productivity which has been awarded with 1st rank and under constraints related to non-adopter farmers Lack of awareness of new technologies was the major problem expressed by the respondents.

Keywords: Technology constraints adoption, Krishi Vigyan Kendra, adopter, non adopter

Introduction
Krishi Vigyan Kendra's (KVKs) in India play an important role in the transfer of Agricultural technologies (Jiyawan *et al*., 2012). Presently, the Krishi Vigyan Kendra's (KVKs) has been recognized as an effective link between agricultural research and extension systems in the country. Training is a fundamental concept in human resource development and it refers to the teaching, learning activities which are carried out to help members of an organization to attain knowledge and skills. An agricultural invention and innovation continuum in all facets of agriculture and allied activities with its effective diffusion is the key to sustainably increase the production and productivity with environmental sustainability. The lab to land transfer of technology is very much important in the fruitfulness of every innovation; hence Krishi Vigyan Kendra (KVK) was launched in our country to impart knowledge to the grass root level. The KVK is an educational institution of the farmers, it offers a real opportunity by organising trainings to work closely with trainees in developing the skill. The specific objectives of this study are to identify the various constraints faced by the adopter and non adopter farmers with respect to the recommended practices. It will very essential for the effective functioning of KVKs.

Research Methodology
Ex post facto study or after-the-fact research design was adopted for the study as it describes the characteristics that are being studied. The present study was conducted in Mau district of Uttar Pradesh in the year of 2022. Multistage randomised sampling has been adopted for the study which involves in selection of Ratanpura block among 10blocks because wheat cultivation is extensively grown in this specific area. Out of total villages five villages were selected purposively i.e Haldharpur, Chauri, Amari, Dighera and Ailakhimiliya. 90 respondents of different categories were selected randomly and data has been collected with the help of well structured and pre tested interview schedule related to the constraints in the region. To interpret the results and to show the ranking among all constraints Garrett's ranking technique has been followed. The study was conducted in district Mau, Uttar Pradesh and referred to the agricultural year 2021-22.

Corresponding Author
Akash Kumar Maurya
M.Sc. Agricultural Economics,
Research Scholar, SHUATS,
Prayagraj, Uttar Pradesh, India

Tools of Analysis
Garrett ranking technique was applied to analyse and rank various constraints as experienced and unveiled by respondent farmers in performing their fish farming business. The respondents were asked to rank the factors that have probably restrained their performance in obtaining expected outcome in fish farming. The most common problems in fish farming in the region are: damage due to natural calamities, delay in cash payment, high cost of labor, high initial investment, frequent price fluctuations, The order of the merit given by the respondents to each problem has been converted into ranks using the following formula for production and marketing in two different tables:

Percent position= $(100(R_{ij}-0.5))/N_j$

where,
Rij = Rank given for the ith variable by jth respondents
Nj = Number of variable ranked by jth respondents

The percent position of each rank was converted into scores by referring tables given by Garrett and Woodsworth (1969).

Results and Discussion

Transfer of technology constraints adoption related to adopter groups

Sl.no	Constraints	Garrate Percentage	Rank
1	Lack of good quality of pesticides and fungicides	48.5	VI
2	Lack of scientific training about crop production	42.75	IX
3	Non-availability of labour during peak	51.88	V
4	Low lying water lagged area	53.96	II
5	Poor productivity	56.41	I
6	Plant protection equipment's are costly	52.48	III
7	Unavailability of quality seed	51.88	IV
8	Lack of information about government schemes and subsidies	43.2	VIII
9	High cost of labour	48.35	VII
10	Lack of awareness of new technologies	42.3	X

Table 1 shows that constraints faced by adopter farmer expressed that major constraint was identified that Poor productivity which has been awarded with rank I, followed by Low lying water lagged area with rank II, Plant protection equipment's are costly with rank III, Unavailability of quality seed with rank IV, Non-availability of labour during peak with rank V, Lack of good quality of pesticides and fungicides with VI, High cost of labour with rank VII, Lack of information about government schemes and subsidies with rank VIII, Lack of scientific training about crop production with rank IX, Lack of awareness of new technologies with rank X.
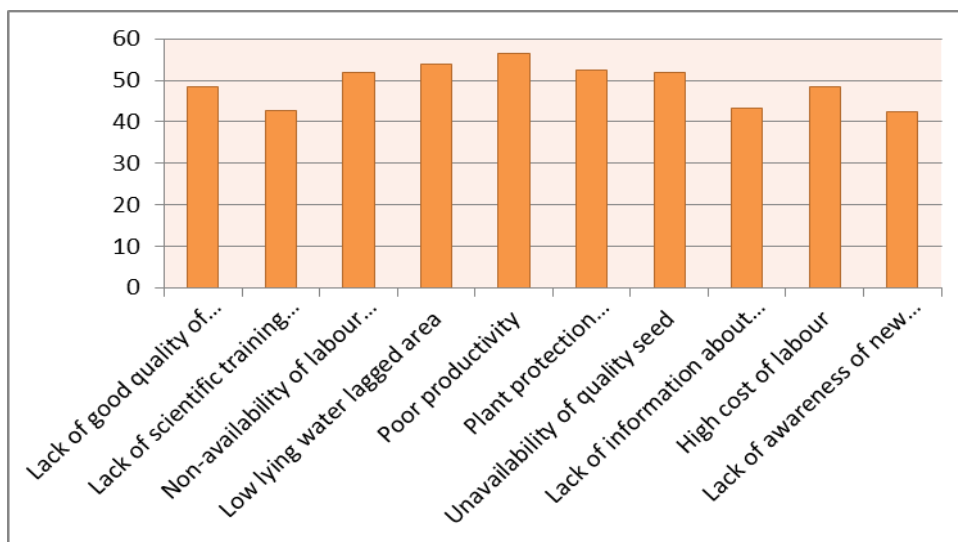

Fig 1: Constraints related to adopter farmers

Transfer of technology constraints adoption related to non-adopter groups

Sl.no	Constraints	Garrate Percentage	Rank
1	Lacks of awareness about apply the recommended dosage	33.5	X
2	High cost of manure	31.45	IX
3	Lack of information about government schemes and subsidies	42.85	VIII
4	Non-availability of skilled labour	54.88	IV
5	Non-availability of labour during peak	50.59	VII
6	Lack of scientific training about crop production	59.47	II
7	Lack of awareness of new technologies	61.33	I
8	Lack of irrigation facilities	58.5	III
9	Shortage of fertilizer	53.2	V
10	High cost of labour	51.55	VI

Table 2 shows that constraints faced by non-adopter farmer expressed that major constraint was identified that Lack of awareness of new technologies which has been awarded with rank I, Lack of scientific training about crop production followed by with rank II, Lack of irrigation facilities with rank III, Non-availability of skilled labour with rank IV, Shortage of fertilizer with rank V, Shortage of fertilizer with VI, Non-availability of labour during peak with rank VII, Lack of information about government schemes and subsidies with rank VIII, High cost of manure with rank IX, Lacks of awareness about apply the recommended dosage with rank X.
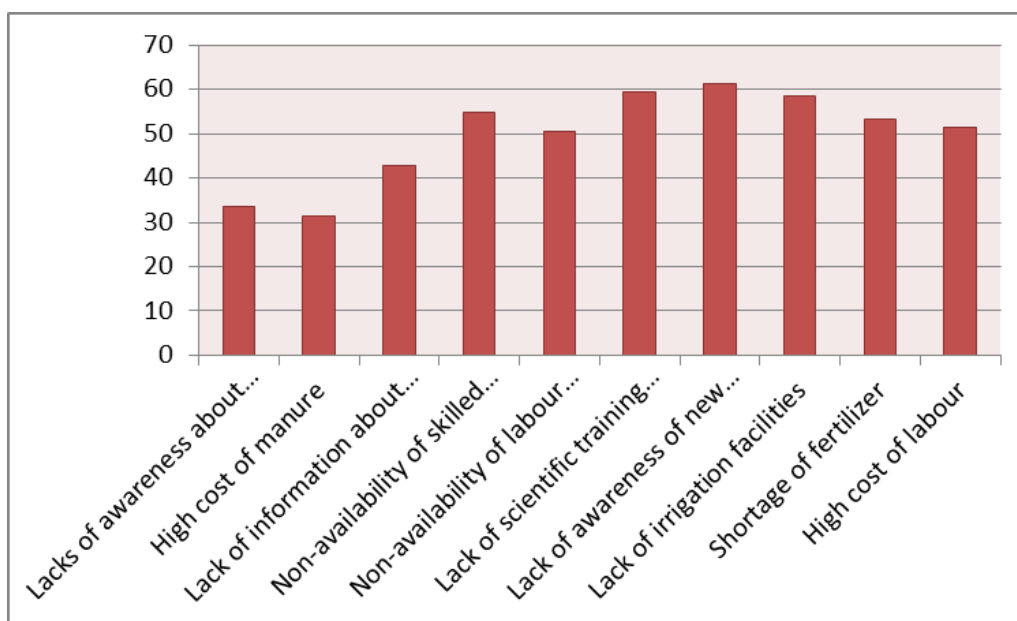

Fig 2: Constraints related to non-adopter farmers

Conclusion
Findings of the present study reveal that major constraints as Poor productivity for adopter farmers and Lack of awareness of new technologies faced by non adopter farmers. As 85.71 percent of total 90 respondents expressed that the above mentioned constraints as most effecting factors during wheat cultivation. Hence government as well as KVK Mau should consider resolving these constraints.

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