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## Constraints faced by farmers in adoption of improved practices of wheat cultivation in district Kanpur Dehat (Uttar Pradesh)

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### Abstract

Wheat is the main staple food for the people of India. In many developing countries like India where there are limited agricultural resources such as small land holdings, limited agricultural facilities and a large population to feed farmers face many constraints in adoption of improved crop cultivation practices. The present study was conducted in randomly selected Sarvankhera block of District Kanpur Dehat, five villages Duari, Gangrauli, Bharatpur Piyasi, Rasulpur Gogumau and Shyampur were randomly selected and a sample of 120 wheat grower farmers from selected block were selected by random sampling technique. The majority of farmers covered were of middle age groups, having middle school standard qualification, medium family size (6-9 members) and medium experience of farming (16-25 years). The data was collected from each respondent through pre-tested structured interview schedule and suitable statistical procedures were used to analyze the data. Constraints were categorized into six categories, namely, administrative constraints, input constraints, technical constraints and other miscellaneous constraints. The study concluded that less visit of staff during crop season (98.33%), high cost of HYVs seeds, fertilizers and chemicals (97.5%), lack of information related to improved practices (88.33%), low risk bearing capacity of farmers (99.16%) and weather condition and rainfall affecting the yield (96.66%) were experienced to be main constraints which affect the adoption of improved wheat production technologies by the respondent farmers of the study area.

**Keywords:** Constraints, population, experience, skill, procedure

### Introduction

One of the major needs of developing countries is to feed its entire population with the quality produce through agriculture. In India, where agriculture holds a dominant place in the economic development of the country, economic growth and progress actually depends up to a large extent on the improved cultivation practices of various crops and adoption of latest agricultural practices by the farmers. Hence, it is important to change the outlook of the farmers so that they may shift their mindset from traditional methods of cultivation to modern practices. To make it possible, it is important to disseminate the latest agricultural knowhow to the farmers. A significant progress has been recorded in increasing crop production, its productivity and per head availability of nutritious food over the last few decades. This progress could happen due to the various strategies, policies and programs conducted by the government and also the efforts made by the state agricultural universities and ICAR institutes have played a significant role in making it possible on a large scale. Although, scientific research, development of new technologies have played an important role in agricultural development but due to its low adoption by the farmers it has become difficult to keep pace with the overall agricultural development. It is seen on the ground level that production of various crops is still low. The adoption level of improved cultivation practices must be enhanced. The dissemination of knowledge of the recommended crop production technologies is the main factor for its adoption by the farmers. Knowledge of new technology creates an inner urge to adopt it, and adoption of latest of latest technical knowhow is the key to increase the crop production of various crops. It is generally observed that not every farmer uses the recommended crop production technologies at first. Many extension workers have observed that despite of being very helpful for the increment in the crop production many farmers do not adopt the latest crop production technologies and rely upon their indigenous knowledge only. Keeping in mind, the facts stated above, the present study was conducted to know the major constraints which create hindrance in adoption of recommended improved practices of wheat cultivation.

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## Materials and Methods

The present study was conducted in purposely selected Kanpur Dehat district of Uttar Pradesh where wheat has been one of the major crops for the livelihood of people. In order to select the respondents for the study Sarvankhera Block was selected randomly. Five villages from this block were selected randomly. From all five villages named, Duari, Gangrauli, Bharatpur Piyasi, Rasulpur Gogumau and Shyampur, a sample of 120 wheat growers were selected as respondents for the data collection. The main constraints were considered as the main obstacles in adoption of improved practices of wheat cultivation. A schedule was developed in order to appropriately measure the constraints by keeping in mind all the possible constraints faced by the farmers of that particular area that create hindrance in adoption of improved practices in the cultivation of wheat. The constraints were categorized in four categories, namely, administrative constraints, input constraints, technical constraints and other miscellaneous constraints. Each category was further sub divided into several sub categories. The percentage was calculated on the basis of the net score obtained by each respondent in each category. Rank was also provided under various categories of the constraints on the basis of the percentage. After this, data was tabulated, analyzed and conclusions were drawn keeping in mind the various objectives of the study.

## Result and Discussion

**Administrative Constraints:** The data from table 1 indicates that the main constraint under this category was less visit of the staff during crop season followed by improper extension workers (90.83%), lack of technical knowhow of the farmers(81.66%), and barriers in distribution of required variety of seeds(46.66%) in adoption of improved practices in wheat cultivation. Due to lack of irrigation water, the soil is losing its fertility too.

### Input Constraints

It was observed that some farmers know the latest variety of wheat crop yet due to its unavailability in that area it becomes difficult to keep pace with latest technical knowledge. High cost of HYVs seeds, fertilizers and chemicals was observed to be the main input constraint followed by high cost of labor (95.00%), lack of irrigation facilities in farmer's field (93.33%), money problem during sowing time (91.66%) and unavailability of labor at sowing time (80.00%). Due to the closeness with Kanpur city laborers prefer to work in city areas with high wages. These were also perceived as the main constraint in the ways of adoption of improved practices of wheat cultivation. Wheat is the main source of income and livelihood in this area, yet people face challenges in its scientific cultivation.

**Table 1:** Different Constraints Faced by Farmers in Adoption of Improved Practices of Wheat Cultivation in District Kanpur Dehat (Uttar Pradesh)

Sr. No.	Constraints	Percentage	Rank
<b>A.</b>	<b>Administrative constraints</b>		
1.	Less visit of staff during crop season	98.33	I
2.	Improper extension workers	90.83	II
3.	Lack of technical knowhow of the farmers	81.66	III
4.	Barriers in the distribution of required varieties and seed	46.66	IV
<b>B.</b>	<b>Input constraints</b>		
1.	High cost of HYVs seeds, fertilizers and chemicals	97.50	I
2.	High cost of labor	95.00	II
3.	Lack of irrigation facilities in farmers fields	93.33	III
4.	Money problem during sowing time	91.66	IV
5.	Unavailability of labor at sowing time	80.00	V
6.	Lack of improved variety seeds at sowing time	52.50	VI
7.	Unavailability of fertilizer at sowing time	44.16	VII
8.	Lack of recommended chemicals for seed treatment	42.50	VIII
<b>C.</b>	<b>Technical constraints</b>		
1.	Lack of information related to improved practices	88.33	I
2.	Lack of adoption of HYVs seeds	80.83	II
3.	Lack of knowledge about insects, pests and diseases and their management	41.66	III
4.	Lack of knowledge about insecticide and chemical doses and application measures	39.16	IV
<b>D.</b>	<b>Miscellaneous constraints</b>		
1.	Low risk bearing capacity of farmers	99.16	I
2.	Weather condition and rainfall affect the yield	96.66	II
3.	Late sowing reduces the yield	90.83	III

**Technical Constraints:** - Majority of farmers perceived that the lack of information related to improved practices as the most important technological constraint in adoption of improved practices of wheat cultivation followed by lack of adoption of HYVs seeds (80.83%), lack of knowledge about insect, pest, and disease and its management (41.66%) and lack of knowledge about insecticide, chemical doses and their application measures (39.16%) were assigned 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> rank respectively.

**Miscellaneous constraint:** - The data from table 1 cleared that low risk bearing capacity of farmers was the major

miscellaneous constraint in adoption of improved cultivation practices of wheat crop followed by weather condition and rainfall affecting the yield (96.66%) and circumstances leading to late sowing of crop resulting the yield reduction (90.83%) which were observed to be the main constraints in adoption of improved practices of wheat cultivation.

### Conclusion

The results of this study leads to conclude that various constraints were hindering the process of adoption of improved practices in wheat cultivation by the farmers. Less visit of staff during crop season, improper extension workers,

lack of technical knowhow of the farmers, barriers in the distribution of required varieties and seed, high cost of HYVs seeds, fertilizers and chemicals, high cost of labor, lack of irrigation facilities in farmers fields, money problem during sowing time, unavailability of labor at sowing time, lack of information related to improved practices and low risk bearing capacity of farmers were perceived as the important constraints which hindered the adoption of improved practices of wheat cultivation.

Hence, it is suggested that staff of concerned authority should frequently visit the field and extension efforts should be increased to enhance the knowledge and adoption level of improved practices in wheat cultivation. Besides this, credit facilities should be provided for the supply of agricultural inputs. The need is to focus upon these constraints to achieve the proper adoption of improved wheat cultivation practices.

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