The Pharma Innovation

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To assess the impact of farmers through knowledge and adoption of crop insurance scheme

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Abstract
A study conducted in titled "To assess the impact of farmers through knowledge and adoption of crop insurance Scheme". State U.P. and District Hardoi were selected purposively for present study because researcher is familiar with the area. Two blocks of Hardoi District namely Harpalpur and Sandi also selected purposively, separate lists of villages were prepared. From them ten villages from each block were selected randomly to draw the samples of farmers. A separate list of farmers was prepared for each selected village and arranged according to the category of farmers i.e. marginal, small, medium, and big farmers. Therefore, a total of 200 respondents were selected through random sampling techniques, 10 framers were selected from each village. A structured schedule was developed with the help of guide for specially this study through various resources like research paper and because of locality. The schedule was contained various details like independent and dependent variables. The data was collected by personal interview. Statistical framework for analysis of data to analyze the collected information, following statistical tools and methods were used for interpreting the data. Present study pertaining to 2020-21. Result found that 39.00 percent respondents have high knowledge about crop insurance scheme whereas 38.50 percent and 22.50 percent respondents have medium level and low level of knowledge about Crop Insurance Scheme respectively. Majority of respondents were coming into high level of knowledge category. The mean score of knowledge is 23.39 and Standard deviation was 4.31 with range from minimum 14 to maximum 37.

Keywords: Knowledge, schedule, statistical framework and statistical tool etc.

Introduction
In April 1985, the Comprehensive Crop Insurance Scheme was implemented which covered all the willing states and Union Territories. It was implemented in 17 states and 2 Union Territories up to kharif, 1990. The benefits of the crop insurance were extended to nearly 1.94 million farmers and covered 3.14 million hectares. However, the scheme covered mainly large farmers but small and marginal farmers could not get benefits of the scheme. The benefit of the Comprehensive Crop Insurance Scheme was availed mainly by farmers of Gujarat, Maharashtra, Andhra Pradesh and Madhya Pradesh. Their share in the claims was nearly 90 percent of total claims paid in the country. On the other hand, states, like Bihar, Assam and northeastern states lagged behind in availing the benefits of crop insurance and their share less than 1 percent of total claims paid in the country. In the year, 1999-2000 the Government of India in co-ordination with the General Insurance Corporation of India (GIC) introduced a new scheme namely, the National Agricultural Insurance Scheme (NAIS) from rabi, 1999-2000 season. India is an agrarian country with 58 percent of the population engaged in agriculture and allied activities for their livelihood and contributing about 14.1 percent of the country's GDP. Crop production is not merely an occupation, but means of livelihood for Indian farmers. Nearly 75 percent of the total Indian population and 89 percent of total population of Bihar live in rural areas where primary occupation is crop cultivation. Jawaharlal Nehru once said that "*Everything can wait but not Agriculture*".
Agriculture which is an important sector of economy is considered widely as an industry. It faces various types of natural hazards. Insurance is an important instrument to give protections under risky activities and that plays significant role in the agricultural production decision, chemical use decision, cultivation practices and cropping pattern decisions. In the advance market economy public agencies introduced all risk crop insurance policies to give protection to the agriculture sector. But in the less developed or developing country such mechanism does not exist because the farmers have the lowest risk bearing capacity. Though in the developing country the sharecropping is an important policy to give them safeguard from risk activity but

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it only gives protection to landless or partially landless peasants. It fails to give protection to small and medium-sized farmers from risk. Agricultural insurance is a more efficient instrument and an effective institutionalized mechanism for dealing with the problem. Agricultural insurance considerably strengthens the financial security of farmers and reduces the direct and indirect costs on the national economy. In India crop insurance is compulsory for the loaner farmers who borrow loan from banks and other financial institutions. Crop insurance is an important measure/instrument used by farmers for mitigating the financial losses due to various types of natural calamities/risks which damage and destruct the production. It is also one of the important instruments that can be used by a farmer to stabilize his income against partial or complete crop failure due to adverse weather [such as disasters, flood, hail, drought etc.] or due to related adverse physical crop conditions which are beyond his control.

Methodology
Methodology deal with various methods and procedures that are used in the selection of area, locale of study, sampling designs and procedures of data collection, different variables under study, their empirical measurements and statistical methods employed for the analysis of the data.

Selection of state
Uttar Pradesh is a state in Northern India. With over 200 million inhabitants, it is the most populous state in India as well as the most populous country subdivision in the world.

The present study was conducted in state Uttar Pradesh. Uttar Pradesh is a state in northern India. The state is divided in to 18 divisions and 75 districts and capital of Uttar Pradesh is Lucknow. Uttar Pradesh state was purposely selected with many reasons. About 68.72 percent Population of Uttar Pradesh directly or indirectly depends on agriculture and allied sector.

Selection of district
Out of 75 districts of UP, Hardoi district of U.P. was selected for present study. The area was selected for present study because researcher is familiar with the area.

Selection of blocks
There are 19 Community Developmental Blocks in the district out of them two blocks namely Harpalpur and Sandi of Hardoi district were selected purposively. Because of the highest number of farmers covered under Crop Insurance Scheme. The total number of blocks in Hardoi district is 19. Out of 19 blocks, two blocks namely Harpalpur and Sandi block of Hardoi district were selected purposely. Because of the highest number of farmers covered under Crop Insurance Scheme. (District Sankhikiya Patrika, 2020).

Selection of village
From selected blocks of Hardoi district namely Harpalpur and Sandi. Separate lists of villages were prepared. From them ten villages from each block were selected randomly to draw the samples of farmers.

Table 1: Selection of respondent and sampling design

S. N.	Unit	Particulars		Sampling design
1.	State	Uttar Pradesh		Purposively
2.	District	Hardoi		Purposively
3.	Block	Harpalpur	Sandi	Purposively
4.	Village	Arjunpur, Chaupur, Dheerpur, Harha, Murcha Karan, Madhpura, Madaiya, Uncha Geon, Kodhari and Nagra	Adampur, Auraini, Mahitapur, Shekhpur, Semria, Umrauli Haider, Sadullapur, Pipri, Lonar and Karanpur	Random
5.	Respondents	100 (10 from each village)	180 (10 from each village)	Radom sampling

Selection of respondent
A separate list of farmers was prepared for each selected village and arranged according to the category of farmers i.e. marginal, small, medium, and big farmers. Therefore, a total of 200 respondents were selected through random sampling techniques, 10 framers were selected from each village.

Selection of variables and empirical measurement
The variables are selected according to the objectives of the study. The selected variables categorized into the Independent variable and dependent variables. The suitable statistical tools/techniques were used for computing the data and inferences to be drawn. The present study carried out during the year 2020-2021. Constraints measured by open ended response and remedial measured by perceived response.

Constraints
To study the constraint of Respondents about Crop Insurance Scheme and use of Crop Insurance Scheme, the open-ended reaction was examined for from respondent keeping view the various activities the farmer in the study area. To discover the reasonable and proper constraints, we collected all statements from respondents and give them rank according to maximum number of respondent reaction on a statement by the mean percentile score.

Suggestions
During the assessment of constraints about awareness and utilization of Crop Insurance Scheme, the respondent was asked about suitable suggestion about constraints to solve them.

Tools and techniques for data collection
A structured schedule was developed with the help of guide for specially this study through various resources like research paper and because of locality. The schedule was contained various details like independent and dependent variables. The data was collected by personal interview.

Statistical data analysis
Statistical framework for analysis of data to analyze the collected information, following statistical tools and methods were used for interpreting the data.

Percentage: Simple comparisons were made based on frequency and percentage.

Mean or Average: Mean percent score was obtained by multiplying total obtained score of the respondents by hundred and divided by the maximum obtainable score under each practice. Formula of MPS is given as under:

$$\text{Mean } (\overline{X}) = \sum x/N$$

Where,

$(\overline{X})$ = is mean.

$\sum x$ = is total score obtained by respondent.

N = total no of respondent.

Result and Discussion

Constraint of Respondents about crop insurance scheme, the open-ended reaction was examined for from respondent keeping view the various activities the farmer in the study area. And discover the reasonable and proper constraints, collected all statements from respondents and given them rank according to maximum number of respondent reaction on a statement by the percentile score.

Table-2 revealed that rank order of constraints faced by the respondents about Crop Insurance Scheme presents.

The above table 2 reveals that out of fifteen constrains in Crop Insurance Scheme the constant can be placed in a descending order *viz.* no dues certificate are hardly available I rank 91.00 percent fallowed by Technical guide line is not sought from the bank official 87.00 percent II rank, III rank

Bank officer help in providing crop insurance 84.00 percent, IV rank The formally in fling the lone farmer is tough which causes much In connivance much to illiterate farmers 81.50, V rank Crop Insurance does not help to sustain safely in drought year 79.00 percent, VI rank Many crops are covered under Crop Insurance Scheme 75.50 percent, VII rank Losses due to reasons other than natural claim is not include 73.00 percent, VIII rank Insurance premium is not bearable 68.50 percent, IX rank Financial problem faced in pay of insurance premium in time 67.00 percent, X Most of the time claim is not paid on case of crop is damaged 65.50 percent, XI rank Farmers cannot sustain safely during flood/temperature and humidity 64.00 percent, XII Crop Insurance does not help to sustain safely in drought year 61.00 percent, XIII rank The bank officially do not behave properly 59.00 percent, XIV to give lone to the farmer which make them in different and disinterest 53.50 percent, XV rank Crop Insurance improve economic condition of farmers 49.50 percent respectively.

Therefore, it also revealed that majority of respondents facing the problem related to no dues certificate are hardly available.

Table 2: Distribution of the respondents based on over all knowledge level, n = 200.

S. No.	Categories	Respondents	
		F	**%**
1.	Low (up to 19)	45	22.50
2.	Medium (20-28)	77	38.50
3.	High (29 and above)	78	39.00

Mean = 23.39, SD = 4.31, Min = 14, Max. = 37.

Table-2 depicted that 39.00 percent respondents have high knowledge about crop insurance scheme whereas 38.50 percent and 22.50 percent respondents have medium level and low level of knowledge about Crop Insurance Scheme respectively. Majority of respondents were coming into high level of knowledge category. The mean score of knowledge is 23.39 and Standard deviation was 4.31 with range from minimum 14 to maximum 37.

Table 3: Distribution of the respondents based on statements of knowledge, n = 200.

S. No.	Statements about knowledge	High knowledge (3)	Medium knowledge (2)	Low knowledge (1)	MPS	Rank
1.	Crop Insurance Scheme is started in kharif 1985	20	92	88	01.31	XVIII
2.	Prime objective of Crop Insurance Scheme is to provide financial support due to crop loss	128	43	29	02.93	I
3.	Purpose off Crop Insurance is mitigation the loss	00	138	62	01.39	XVI
4.	Crop Insurance is compensation to loss	14	88	98	01.18	XXI
5.	Crops coverage under Crop Insurance Scheme are kharif, rabi and horticultural crops	118	32	50	02.46	II
6.	Risk coverage are natural disaster	39	95	66	02.09	VII
7.	Only one farmer is covered under Crop Insurance Scheme	12	100	112	01.01	XXV
8.	Only non-lone farmers are covered under Crop Insurance Scheme	20	81	99	01.14	XXII
9.	All states and union territory are covered under Crop Insurance Scheme	42	75	83	01.46	XIV
10.	Premium covered for small and marginal farmers 75% and others 50%	80	65	55	02.10	VI
11.	Parameters of crop insurance are humidity, temperature and others	28	132	40	02.23	IV
12.	Unit is insurance is area approach in village level crop	37	66	97	01.20	XX
13.	Time period of getting claim will be available up to maximum period 14 days from harvesting	40	87	63	01.68	IX
14.	Crop can be insured through financial institution/banks	51	80	69	02.07	VIII
15.	Crop can be insured through financial institution/banks in India limited	98	50	52	02.35	III
16.	Reporting period of crop loss for claim is within 14 days	27	103	70	01.61	X
17.	Premium rate for kharif food and oilseed crop 2%	54	69	77	01.54	XII
18.	Premium rate for rabi food and oilseed crop 1.5%	40	117	43	02.13	V
19.	Premium rate for kharif food and rabi annual commercial and annual horticultural crop 5%	34	71	95	01.21	XIX

20.	In case of crop loss, farmers can report to concerned patwari/bank	54	74	72	01.56	XI
21.	How many applications are required to apply the crop insurance scheme?	20	96	84	1.36	XVII
22.	Carry out beneficiaries of the Crop Insurance Scheme	65	55	80	01.51	XIII
23.	Whether the crop insurance scheme covers the contingents needs?	00	92	108	01.07	XXIV
24.	Do you know which scheme were combined in this scheme	34	62	104	01.11	XXIII
25.	Please state the share of center and state government in Crop Insurance Scheme	62	39	99	01.43	XV

Data presented in Table-3 were revealed that mean percentile score of all statements was 1.65 and rank is assigned on the basis MPS. Hence the statements were in descending order *viz*. Prime objective of Crop Insurance Scheme is to provide financial support due to crop loss (02.93) followed by Crops coverage under Crop Insurance Scheme are kharif, rabi and horticultural crops (02.46), Crop can be insured through financial institution/banks in India limited (02.35), Parameters of crop insurance are humidity, temperature and others (02.23), Premium rate for rabi food and oilseed crop 1.5% (02.13), Premium covered for small and marginal farmers 75% and others 50% (02.10), Risk coverage are natural disaster (02.09), Crop can be insured through financial institution/banks (02.07), Time period of getting claim will be available up to maximum period 14 days from harvesting (01.68), Reporting period of crop loss for claim is within 14 days (01.61), In case of crop loss, farmers can report to concerned patwari/bank (01.56), Carry out beneficiaries of the Crop Insurance Scheme (01.51), Purpose off Crop Insurance is mitigation the loss (01.46), Please state the share of center and state government in Crop Insurance Scheme (01.43), Purpose off Crop Insurance is mitigation the loss (01.39), How many applications are required to apply the crop insurance scheme? (01.36), Crop Insurance Scheme is started in kharif 1985 (01.31), Unit is insurance is area approach in village level crop (01.20), Crop Insurance is compensation to loss (01.18), Only non-lone farmers are covered under Crop Insurance Scheme (01.14), Do you know which scheme were combined in this scheme (01.11), Whether the crop insurance scheme covers the contingents needs? (01.07) and Only one farmer is covered under Crop Insurance Scheme (01.01) respectively were found statements of knowledge in study area.

Summary and Conclusion
Majority of respondents were coming into high level of knowledge category. The mean score of knowledge is 23.39 and Standard deviation was 4.31 with range from minimum 14 to maximum 37.

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