Plant Archives Volume 20 No. 2, 2020 pp. 4939-4942 **e-ISSN:2581-6063 (online), ISSN:0972-5210**

A STUDY ON THE KNOWLEDGE LEVEL OF RESPONDENTS ON CROP INSURANCE SCHEME

Darling B. Suji[1], J. Karthiyaeeni[1] and C. Praveen Sampath Kumar[2]

[1]Department of Agricultural Extension, Faculty of Agriculture, Annamalai University, Annamalainagar-608 002 (Tamilnadu) India.
[2]Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Annamalainagar-608 002 (Tamilnadu) India.

Abstract

Indian agriculture is heavily dependent on rainfall which mainly occurs about two and half months during monsoon season The individual approach seeks to indemnify the farmer to the full extent of the losses and the premium to be paid by him is determined with reference to his own past yield and loss experience. As such it necessitates reliable and accurate data of crop yields of individual farmers for a sufficiently long period for fixation of premium on actuarially sound basis. The homogenous area approach envisages that within the absence of reliable data of individual farmers and in sight of the moral hazards involved within the individual approach, a uniform area would form the essential unit, rather than a private farmer. The homogeneous area would comprise of villages that are homogenous from the purpose of view of crop production and whose annual variability of crop productivity would be similar. The study shows that nearly half of the respondents (48.33 percent) of the respondents had medium level of knowledge followed by low (37.50 percent) and high (14.17 percent) of the respondents possess knowledge level on the crop insurance.

Key words: crop insurance scheme, age, education, occupation etc

Introduction

The question of introduction of crop insurance in India was taken up for examination soon after independence in 1947. A special study to work out modalities of crop insurance was commissioned in 1947-48 following an assurance given by the Ministry of Food and Agriculture to introduce crop and cattle insurance in the country. The first aspect regarding the modalities of crop insurance considered was whether it should be on individual approach or homogenous area approach.

The individual approach seeks to indemnify the farmer to the full extent of the losses and the premium to be paid by him is determined with reference to his own past yield and loss experience. As such it necessitates reliable and accurate data of crop yields of individual farmers for a sufficiently long period for fixation of premium on actuarially sound basis.

The homogenous area approach envisages that within the absence of reliable data of individual farmers and in sight of the moral hazards involved within the individual approach, a uniform area would form the essential unit, rather than a private farmer. The homogeneous area would comprise of villages that are homogenous from the purpose of view of crop production and whose annual variability of crop productivity would be similar. The study favoured homogenous area approach. Various agro-climatically homogenous areas to be treated as units and therefore the individual farmers in those area units would pay an equivalent rate of premium and receive an equivalent benefit, irrespective of differential loss in individual yields.

Materials and Methods

Knowledge stage, the individual is exposed to the crop insurance scheme, but lack complete information about it. This process occurs by the chance or by the purposeful effect made by the person himself.

It is operationally defined as the behaviour of farmers through which he exposes to the crop insurance scheme, but lack complete information about it. Regarding crop insurance 31 statements were framed and the responses

were elicited on 2-point continuum *i.e.* Known and unknown by assigning a score of 2 and 1 respectively. This procedure was followed by Belgavimath, (1994) and Sharmila, (2017).

Results and Discussion

Distribution of respondents according to their overall knowledge level on crop insurance scheme

The results of distribution of respondents according to their overall knowledge on crop insurance scheme are presented in table 1. It indicates that most (48.33 percent) of the respondents had medium level of knowledge followed by low (37.50 percent) and high (14.17 percent) of the respondents possess knowledge level on the crop insurance.

Distribution of respondents according to their attribute wise knowledge level on crop insurance scheme

The results of distribution of respondents according to their attribute wise knowledge level on crop insurance scheme are given in table 2.

I. Objectives: The mean value of knowledge on objective was 44.17 percent. 47.50 percent had knowledge about crop insurance encourages farmers to adopt a new technology. Crop insurance helps in maintaining the flow of agricultural credit (45.00 percent). Crop insurance helps to stabilizing the farm income during disaster period (40.00 percent). This might be due to lack of awareness on objectives of the crop insurance scheme.

II. Farmers Coverage: The mean value of knowledge on farmers coverage was found to be 54.58 percent. Their knowledge level was found to be high on the crop insurance scheme was voluntary basis to Non-loanee farmers (60.00 percent) followed by compulsory for loanee (49.16 percent). This is might be due to lack of complete information on farmer's coverage.

III. Crop Coverage: The mean value of knowledge on crop coverage was found to be 70.42 percent. Their knowledge level on notified crops was found to be (75.83 percent) followed by kharif and rabi season (65.00 percent). This might be due to banks/Financial institution in the area issuing SAO regularly.

Table 1: Distribution of respondents according to their overall Knowledge level on crop insurance scheme. (n=120)

S. No	Category	Respondents	
		Number	Per cent
1.	Low	45	37.50
2.	Medium	58	48.33
3.	High	17	14.17
	Total	**120**	**100.00**

IV. Risk coverage: The mean value of knowledge on risk coverage was found to be 55.99 percent. Their knowledge level on risk management tool (80.00 percent), Standing crop damage due to drought, dry spells, flood, pest & diseases, fire/lightening, storm/hailstorm (65.83 percent), localized calamities (47.50 percent), prevented sowing/ Pre sowing risk (45.00 percent) and Post-harvest losses coverage (41.66 percent). The knowledge level high on standing crop damage due to drought because farmers are belonging to the drought prone area.

V. Insurance Unit: The mean value of knowledge level on Insurance unit was found to be 66.67 percent. The knowledge level on area approach was found to 70.83 percent followed by Insurance unit will be village or the major growing unit (62.50 percent). This might be due to medium level of social participation and extension agency contact.

VI. Sum Insured: The mean value of knowledge on Sum Insured was found to be 36.11 percent. The knowledge level on sum insured amount for paddy crop (53.33 percent) followed by sum insured amount for non-loanee and loanee farmer (35.00 percent) and normal coverage (20.00 percent). This might be due to lack of complete information on of sum insured amount for various level of coverage.

VII. Premium: The mean value of knowledge level on premium was found to be 52.77 percent. More than half (55.83 percent) of the respondents had knowledge about premium rate for paddy crop in rabi season as same as premium amount for paddy crop (55.83 percent). Nearly half (46.66 percent) of the respondents had knowledge about premium rate for paddy crop in kharif season. This might be due to awareness on premium through the television, newspaper etc.

VIII. Premium Subsidy: The mean value of knowledge level on premium subsidy was found to be 55.00 percent. The knowledge level on premium subsidy was found to be 55.00 percent. This might be due to awareness on premium through the television, newspaper etc.

IX. Level of Indemnity: The mean value of knowledge level on level of indemnity was found to be 16.25 percent. The knowledge level on indemnity level calculation based on firka level was found to be 15.00 percent followed by 17.50 percent of the respondents had knowledge on indemnity level calculated to the paddy crop. The knowledge level on levels of indemnity was found to be very low might because of the difficulty in understanding the method. This is in line with the findings of Varathan, (2012).

Table 2: Distribution of respondents according to the attribute wise knowledge level.

S. No	Statements	Number of Respondents	Percent
I	**Objectives**		
1.	Crop insurance encourages farmers to adopt a new technology in paddy	57	47.50
2.	Crop insurance helps in maintaining the flow of Agricultural credit	54	45.00
3.	Crop insurance helps to stabilizing the farm income during disaster period	48	40.00
	Mean		**44.17**
II	**Farmers Coverage**		
1.	Crop insurance is compulsory to loanee farmers	59	49.16
2.	Crop insurance is voluntary to Non-loanee farmers	72	60.00
	Mean		**54.58**
III	**Crop Coverage**		
1.	Notified crops for crop insurance scheme	91	75.83
2.	Paddy crop raised during kharif and rabi season is also eligible for crop insurance.	78	65.00
	Mean		**70.42**
IV	**Risk Coverage**		
1.	Crop insurance scheme is one of the risk management tool	96	80.00
2.	Crop insurance provide comprehensive risk insurance coverage against Localized calamities	57	47.50
3.	Post-harvest losses coverage covered up to two weeks from harvest	50	41.66
4.	Settlement of claims up to 25% of sum insured amount paid for prevented sowing/ Pre sowing risk	54	45.00
5.	Standing crop damage due to drought, dry spells, flood, pest& diseases, fire/lightening, storm/hailstorm	79	65.83
	Mean		**55.99**
V	**Insurance Unit**		
1.	Crop insurance scheme operates based on Area approach	85	70.83
2.	Insurance unit will be village or the major growing unit	75	62.50
	Mean		**66.67**
VI	**Sum Insured**		
1.	Sum insured limit for normal coverage to farmers is up to Scale of finance.	24	20.00
2.	Sum insured amount for paddy crop per acre	64	53.33
3.	Sum insured amount same for non-loanee and loanee farmer	42	35.00
	Mean		**36.11**
VII	**Premium**		
1.	Premium rate for Paddy crop in kharif season is 2.0%	56	46.66
2.	Premium rate for Paddy crop in rabi season is 1.5%	67	55.83
3.	Premium amount for paddy crop per acre	67	55.83
	Mean		**52.77**
VIII	**Premium Subsidy**		
1.	Premium subsidy to be shared by Centre and state government is equal.	66	55.00
	Mean		**55.00**
IX	**Level of Indemnity**		
1.	Indemnity level is calculated based on firka level	18	15.00
2.	Indemnity level calculated to the paddy crop is 70%, 80%, and 90%	21	17.50
	Mean		**16.25**
X	**Loss Assessment**		
1.	Mobile apps are used for reporting incidents of localized calamities.	91	75.83
2.	Sowing certificate issued for the crop insurance is issued by agriculture officer of block.	83	69.16
3.	Assessment for crop damage due to Post-harvest losses and localized risks will be made on individual farm basis.	62	51.66
	Mean		**65.55**

Table 2 Continue...

Continue Table 2 ...

XI	**Threshold Yield**		
1.	Threshold Yield is calculated by average yield of last seven years excluding two years of declared calamity if any, multiplied by the level of indemnity of the area.	20	16.66
	Mean		**16.66**
XII	**Crop Cutting Experiment**		
1.	Crop cutting experiment used toaccess actual yield data	12	10.00
2.	CCE is conducted by Department of Agriculture	15	12.50
3.	Ten CCE'S is to be conducted in firka level	12	10.00
	Mean		**10.83**
XIII	**Documents Required**		
1.	Documents required for getting crop insurance	103	85.83
	Mean		**85.83**
XIV	**Nodal Agency**		
1.	Nodal agencies involved in crop insurance scheme	104	86.66
	Mean		**86.66**

X. Loss Assessment: The mean value of knowledge level on loss assessment was found to be 65.55 percent. Majority (75.83 percent) of the respondents had knowledge on mobile apps usage followed by 69.16 percent had knowledge on sowing certificate and assessment procedure for crop damage due to Post-harvest losses and localized risks (51.66 percent). Majority of the respondents had knowledge on mobile apps usage for loss assessment because of increasing in mobile and social media usage. This is in line with the findings of Mariappan, (2016)

XI. Threshold Yield: The mean value of knowledge level on threshold yield was found to be 16.66 percent. The knowledge level on threshold yield calculation was found to be 16.66 percent. The knowledge level on threshold yield was found to be very low might because of the difficulty in understanding the method.

XII. Crop Cutting Experiment: The mean value of knowledge level on crop cutting experiment was found to be 10.83 percent. The knowledge level on crop cutting experiment usage (10.00 percent), responsible agency for conducting CCE (12.50 percent), number of CCE conducted in firka level (10.00 percent). The knowledge level of CCE was found low because of tedious process of methodology by the agency. This is in line with the findings of Kale, (2011).

XIII. Documents Required: The mean value of knowledge level on documents required was found to be 85.83 percent. Majority (85.83 percent) of the respondents had knowledge on documents required for getting crop insurance. This might may be due to majority of respondents had formal education, farmers experience in credit access and crop insurance.

XIV. Nodal Agency: The mean value of knowledge level on nodal agency was found to be 86.66 percent. Majority (86.66 percent) of the respondents had knowledge on nodal agency involved in crop insurance scheme. The farmers had more knowledge about nodal agency because their relationship with bank and financial institutions for getting loan etc.

Conclusion

Indian agriculture is heavily dependent on rainfall which mainly occurs about two and half months during monsoon season. Natural calamity's effect on agriculture yield is much more. This study clearly shows that nearly half of the respondents had knowledge on crop insurance scheme. So we have to conduct more awareness programmes.

Reference

Agwane, R.M. (2013). Wheat production technology followed by Farmer. Unpublished M.Sc (Ag) thesis, Mahatma Phule Krishi Vidhyapeeth. Rahuri.

Gangaram Kale Jaymala (2011). Knowledge and attitude of Farmers towards National Agricultural Insurance Scheme, M.Sc (Ag) Thesis, Marathwada Krishi Vidyapeeth, Parbhani.

Mariappan, S. (2016). A study on knowledge and perception of farmers on crop insurance schemes in the Cauvery delta zone of Tamilnadu, Ph.D Thesis, Indira Gandhi National open University, New Delhi

Prasad Dakeshwar (2018). Assessment of the Pradhan Mantri Fasal Bima Yojanawith reference to satisfaction among the Rice Growers in Mahasamund district of chattisgarh, M.Sc (Ag,) Thesis, Indira Gandhi Krishi Vishwavidyalaya, Raipur.

Varadan Jayakumar. R and Pramod Kumar (2012). Impact of crop insurance on Rice farming in Tamil Nadu. *Agricultural Economics Research Review.*, **25(2):** 291-293.