Indian Journal of Extension Education
Vol. 48, No. 3 & 4, 2012 (107-108)

Knowledge and Attitude of Farmers towards Soil Testing Practices in Rainfed Area

S.K. Pandey[1], U.S. Gautam[2] , D.P. Rai[3] , S.R.K.Singh[4] and D.K.Singh[5]

ABSTRACT

Soil fertility and balanced use of fertilizer by the farmers is one of the important factors that determines the productivity and profitability of crop in rainfed agriculture. Soil testing is a comprehensive soil fertility evaluation programme which helps the farmers for injudicious application of chemical fertilizers. The farmers will be able to know how much nutrients are already available in the soil and how much will have to be provided additionally for a particular crop under rainfed condition. The majority of the farmers had knowledge about soil testing practices, majority of respondents were using the knowledge gained from scientists working in the Krishi Vigyan Kendra, Jaora (Ratlam) in the operational area and the personnel of State Department of Agriculture. Most of the respondents were disagree with the statements and mostly adaptors possessed unfavourable attitude towards soil testing practices. Majority of farmers agreed with statements 'Soil testing is necessary for better crop Production in rainfed area'. The efforts should be made by Krishi Vigyan Kendra (KVK) and department of agriculture to encourage the farmers in adoption of soil testing practices by organizing training programme and campaign specially on soil testing process.

Key words: Attitude, knowledge, soil testing practices.

INTRODUCTION

Soil testing is the base for management decisions about fertilizer requirement. It involves estimation and evaluation of the available nutrient status and acidic reaction of a sample of soil. Fertilizers such as NPK, lime or gypsum are recommended to improve soil fertility in rainfed agriculture. In order to achieve higher productivity and profitability, every farmer should realize that fertility levels must be measured, as these measurements can then be used to manage soil fertility in rainfed area. Balanced use of fertilizers by the farmers in crop is very much essential to achieve maximum production and to earn maximum profit. The research studies revealed that most of the farmers are using continuously larger quantities of chemical fertilizers to increase production without knowing the fertility status of the soils of their field (Srivastava and Pandey, 1991). Soil testing is a comprehensive soil fertility evaluation programme which helps the farmers avoiding indiscriminate use of chemical fertilizers to the crops. Soil testing of a particular field gives reliable information about the deficiency of major nutrients in the soil as well as hazards such as soil acidity, alkalinity and salinity *etc*. After testing the soil, farmers can know the exact amount of nutrients to be applied for a particular crop. The farmers will be able to know how much nutrients are already available in the soil and how much will have to be provided additionally for a particular crop. Therefore, soil testing will definitely be advantageous to the farmers in achieving maximum production and in earning maximum profit. Hence it is essential to create maximum awareness among farmers about balanced use of chemical fertilizers. Keeping in view of the importance of soil testing towards optimum production of crop and maximum net profit of farmers, this study was carried out in the district of Ratlam (Madhya Pradesh) to find out the knowledge of farmers towards soil testing practices and to study the attitude of farmers towards soil testing practices.

METHODOLOGY

The study was conducted in purposively selected Jaora block of Ratlam district in 2008-09. Two adopted villages namely Roopnagar and Bhimakhedi, under operational area of Krishi Vigyan Kendra, Jaora (Ratlam) were selected purposively. Fifty farmers randomly selected in each village who have availed soil testing technique formed the sample. Thus, total number of farmers from two villages was 100. The data were collected by personal interview methods with pre tested schedule designed for the purpose.

RESULTS AND DISCUSSION

The data in Table 1 revealed the knowledge of the respondents about soil testing practices. Majority of the farmers (70%) had knowledge about soil testing practices. Only (30%) respondents had no knowledge of soil testing practices. The knowledge about soil testing

[1]S.M.S. (Agricultural Extension) K.V.K. Jaora (Ratlam), [2]Zonal Project Director VII ICAR , Jabalpur, [3] Senior Lecturer, M.G.C.G.V.V. Chitrakoot, [4]Senior Scientist (Agricultural Extension), ZPD Zone VII, Jabalpur [5] SMS (Extension), KVK Jabalpur, Madhya Pradesh

practices was found satisfactory. Most of the farmers did not know the locations of soil testing laboratories.

Table 1: Knowledge of farmers about soil testing practices

n = 100

Response	No. of respondents	Percentage
Positive	70	70
Negative	30	30

Majority of the respondents (38% and 25%) were gaining knowledge from scientists working in the Krishi Vigyan Kendra, Jaora (Ratlam) and the personnel of State Depertment of Agriculture followed by 5 per cent from fellow farmers, 4 per cent from Agricultural Extension literature, 8 per cent from Kisan gosthi, 5 per cent from Kisan mela, 2 per cent from Radio, 3 per cent T.V. and 10 per cent has no knowledge of soil testing (Table 2).

Table 2: Distribution of respondents according to the source of knowledge

n = 100

Source of knowledge	Frequency	%
KVK Scientists	38	38
Personnel of state Department of Agriculture	25	25
Fellow farmers	5	5
Agricultural Extension Literature	4	4
Radio	2	2
T.V.	3	3
Kisan gosthi	8	8
Kisan Mela	5	5
No. Knowledge	10	10
Total	100	100

Table 3 : Distribution of respondents according to their attitude towards soil testing practices

n = 100

Statements	Response			
	Agree	Undecided	Disagreed	Total
Result is given timely	12(12%)	10(10%)	78(78%)	100
Result of soil testing is reliable	32(32%)	5(5%)	63(63%)	100
Behaviours of soil testing staff is good	35(35%)	5(5%)	60(60%)	100
Number of crops increased in one year after soil testing	32(32%)	12(12%)	56(56%)	100
Soil testing is necessary for better crop production	78(78%)	7(7%)	15(15%)	100
It is very long practices	65(65%)	4(4%)	31(31%)	100
Soil testing is wastage of time and money	15(15%)	6(6%)	79(79%)	100
Expenditure of crop production decreases after soil testing	48(48%)	9(9%)	63(63%)	100

The results given in Table 3 indicated that the majority of respondents were in disagreement with the statements and mostly adaptors possessed unfavourable attitude towards soil testing practices. However, it could be also pointed out that 79 per cent did not agree with the statement that 'Soil Testing is wastage' of time and money.

It also indicates that 78 per cent respondents are not obtaining soil testing report timely and 63 per cent respondents also disagreed with soil testing result is reliable and 32 per cent farmers agreed with the statements. A good number of adopters (65 %) said that 'soil testing is very long process'. This means the soil testing agencies are not working properly in the area and farmers did not have so much faith on the result of soil testing and they felt that it is very long process. It was also observed that majority of the farmers agreed (78%) with statement 'Soil testing is necessary for better crop production'; it means that farmers attitude was generally conservative.

CONCLUSION

Though the soil testing process was well known to the farmers and they also knew its importance, the attitude of the farmers towards soil testing practices was unfavourable. Hence efforts should be made by KVK and Department of Agriculture to encourage the farmers in adoption of soil testing practices by organizing training programmes and soil health campaign especially on soil testing process. If possible, mobile soil testing laboratories should visit the villages sometimes, to test the soil samples at their doorsteps in the village itself. By doing this, reliability of results of soil samples could be increased among the farmers widely in future for better farming. By adopting the soil testing practices the farmers also reduced the large unnecessary chemical fertilizer consumption and the balanced use of chemical fertilizer could be popularized.

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