Impact on Perceived Characteristic and Adoption Level of Trained Trainees in Krishi Vigyan Kendra About Plant Protection Measures

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ABSTRACT

The present study was carried out during the year 2003-2004 in Rampur District of Uttar Pradesh to know the perceived characteristics and adoption level of trained trainees of Krishi Vigyan Kendra about plant protection measures. It was observed that most of the trained trainees had high level of perceived characteristics for weed management, storage of food grains/seeds technology, insects and disease control, whereas low level of perceived characteristics for seed treatment technology. The computed Chi-square value of weed management, food grains/seed storage technology, insects and disease control were more (40.55, 14.15, 48.29 and 19.95) than the tabulated value (5.991), which was statistically significant, whereas with regards to seed treatment, it was found (2.75), which was not significant. The same trend was observed for level of adoption too for the said parameters. Thus, it is apparent that the emphasis should be given on HRD programmes on seed treatment activities, which had direct impact on improvement of yield of various crop.

Key words : Krishi Vigyan Kendra, Plant protection adoption, Secondary data impact

India progressed significantly during the last 5 decades in developing production technologies suitable for agro-climate conditions, high yielding varieties/hybrids, pesticides and fertilizers with their improved qualities. The total consumption of pesticides in the country was estimated to be 43,584 tonnes during the year 2000-2001(ICAR, *Agri.Res. Data Book* 2003). The consumption level of various pesticides/ha is 0.03 kg in India, 1.0 kg in USA and 10-12 kg in Japan. The per capita vegetable consumption has increased from 80-135 g/day, however, it is still far below the recommended requirement of 280 g. Keeping in view the importance of plant protection measures, the depth of know how required and poor knowledge of farmers and trainees it was thought imperative to conduct a survey to find out the perceived characteristics and adoption level of plant protection measures by the trained trainees in K.V.K.

Materials and Methods

This study was conducted in Rampur district during the year 2003-2004. The district comprised of 6 blocks inwhich 4 blocks were selected as per cropped area and productivity/ha. Three villages from each block were selected randomly and ten trained trainees were selected with the help of purposive sampling from each village. The total sample size was 120. The primary data was collected through personal interview with the help of structural schedule and secondary data was collected from ICAR, Agri. Res. Data Book (2003). Soil and environment pollution agriculture journal of India (1999), and evaluation of organization in India Arover, IARI, New Delhi. The data was analysed statistically.

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Results and Discussion

The data of parameter 1 in Table 1, revealed that the majority of trained trainees (40.8%) were found to have low level of perceived characteristics of seed treatment technology, whereas 30 % trained trainees had high level of perceived characteristics of seed treatment technology and the remaining 29.1% trained trainees had medium level of perceived characteristics of seed treatment technology. Parameter 2 revealed that the majority of trained trainees (60.8%) were found to have high level of perceived characteristics of insect control in different crops, followed by 30% trained trainees having medium level of perceived characteristics of insect control in different crops and the remaining 9.1% trained trainees had low level of perceived characteristics of insect control in different crops. Parameter III depicted that the majority of trained trainees (51.6 %) were found to have high level of

Table 1. Plant Protection measures as influenced perceived characteristics of trained trainees

Parameters	Frequency	% age	χ^2 value
I. Seed treatment			
Low	49	40.8	
Medium	35	29.1	2.75
High	36	30.0	
II. Insect control			
Low	11	9.1	
Medium	36	30.0	48.29
High	73	60.8	
III. Disease control			
Low	23	19.1	
Medium	35	29.1	19.95
High	62	51.6	
IV. Weed Management			
Low	15	12.5	
Medium	34	28.3	40.55
High	71	59.1	
V. Food Grain/seed storage			
Low	27	22.5	
Medium	34	28.3	14.15
High	59	49.1	

perceived characteristics of disease control in different crops, followed by 29.1% trained trainees having medium level of perceived characteristics of disease control in different crops and the remaining 19.1% trained trainees had low level of perceived characteristics of disease control in different crops. The parameter IV showed that the majority of trained trainees (59.1%) were found to have high level of perceived characteristics of weed management in different crops, followed by 28.3% trained trainees having medium level of perceived characteristics of weed management in different crops and the remaining 12.5% trained trainees had low level of perceived characteristics of weed management in different crops. Parameter V indicated that the majority of trained trainees (49.1%) were found to have high level of perceived characteristics of food grains/seed storage followed by 28.3% trained trainees having medium level of perceived characteristics of food grain/seed storage and the remaining 22.5% trained trainees had low level of perceived characteristics of food grain/seed storage.

Parameter I in Table 2, indicated that the 32.5% trained trainees were found to adopt the seed treatment crop protection technology, whereas 67.5% trained trainees were not adopted the seed treatment crop production technology. Parameter II indicated that the 73.3% trained trainees were found to adopt the insect control crop protection technology, whereas 26.6% trained trainees were not adopted the insect control crop protection technology. Parameter III depicted that the 69.1 trained trainees were found to adopt the disease control crop production technology whereas 30.8% trained trainees were not adopted the disease control production technology. Paramter IV revealed that the 85.0% trained trainees were found to adopt the weed management crop production technology whereas 15.0% trained trainees not adopted the weed management crop production technology. Parameter V revealed that the 81.6% trained trainees were found to adopt the food grain/seed storage technology, whereas 18.3% trained trainees were not adopted the food grain/seed storage technology.

Table 2. Distribution of trained trainees on the basis of their adoption in relation to plant protection measure

Parameters	Frequency	% age	χ^2 value
I. Seed treatment			
Adopted	39	32.5	14.70
Non-adopted	81	67.5	
II. Insect control			
Adopted	88	73.3	26.12
Non-adopted	32	26.6	
III. Disease control			
Adopted	83	69.1	17.64
Non-adopted	37	30.8	
IV. Weed Management			
Adopted	102	85.0	58.80
Non-adopted	18	15.0	
V. Food Grain/seed storage			
Adopted	98	81.6	48.12
Non-adopted	22	18.3	

It is concluded that Krishi Vigyan Kendra trained trainees had high level of perceived characteristics of insect and disease control, weed managment and storage of food grains/seed technology, whereas they had low level of perceived characteristics of seed treatment technology. The parameters II, III, IV and V, revealed that the calculated Chi-square value was more than the tabulated value (5,991) at 2 degree of freedom and at 5% level of significance, whereas seed treatment values were not found significant but associated with them. The adoption level was high in insect and disease control, weed management and storage of food grains/seed, whereas low adoption was recorded in seed treatment technology and all parameter calculated Chi-square value of significant which was statistically significant. Maurya (1993) observed that the farmers had low knowledge of pest management except control of aphids however, in general the farmers educational and training background was rather poor in eastern U.P. Pathak *et al.* (2002) concluded that if IPM approach was adopted for control of insects or diseases with proper motivation and involvement, it could change the face of rice growers, farmers participatory approach was adapted for the effective management of insect pests and disease in *kharif* okra (Sardana *et al.*, 2005).

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