



Knowledge and Adoption Level of Plant Protection Schedule and Certified Seed by Potato Growers

Rajni Agashe

Krishi Vigyan Kendra, Surguja 497 001 (Chhattisgarh)

ABSTRACT

The present study was carried out during the year 2012-13 in Surguja district of Northern Hilly zone of Chattisgarh. Finding of the study were that before FLD, majority of respondents belonged to low level of knowledge regarding plant protection schedule, time or schedule of use of insecticide/pesticide for storage pests (74.3), whereas, after FLD, maximum number of respondents were having medium level of knowledge about seed treatment, time of schedule of fungicide and other chemicals for diseases control and use of insecticide/ pesticide for storage pest (51.4%). In case of adoption level, before FLD maximum number of respondents belonged to low level of adoption about seed treatment and time or schedule of use of insecticide/ pesticide for storage pests (77.1%). While after FLD, maximum numbers of respondents were having medium level of adoption were about use of insecticide/ pesticide for storage pests (54.3 %). Regarding use of certified seed of potato before FLD, majority of respondents belonged to low level of knowledge about source of availability of certified seed of potato (82.9%). However, after FLD maximum respondents belonged to medium level of knowledge were about time of sowing (62.9%). Level of adoption regarding use of certified seed of potato before FLD majority of respondents belonged to low level of adoption were seed rate (85.7%), while adoption level after FLD maximum respondents belonged to high level of adoption were time of sowing (60.0%). In case of problems faced by respondents regarding use of certified seed maximum respondents having problems of more demand of local red variety of potato by consumer and cost of seed potato (100.0%) both followed by non availability of certified seed of potato in market and lack of facility of cold storage (94.3%) both.

Key Words: Adoption level, Certified seed, FLD, Knowledge level, Potato

INTRODUCTION

Improper plant protection schedule leads to increased infestation of many insect pests as well as attack of diseases in unfavorable condition. Likewise local variety didn't perform better for higher yield. The present system such as seed/soil treatment and recommended plant protection schedule, use of certified seed of suitable variety, sprays of recommended plant protection chemicals for control of major insect-pests and diseases were varying from farmer to farmer. In this context, front line demonstrations (FLD) on assessment of plant protection schedule and use of certified seed of potato conducted during the year 2012-13 at block Surajpur of Surguja District. Total number of

beneficiaries were 35 from obtained farmers list of FLD with following objectives to study the level of knowledge level, adoption and constraints regarding use of plant protection schedule and certified seed by potato growers.

MATERIALS AND METHODS

The study carried out in Surguja district of Chattisgarh. FLD on assessment of use of plant protection schedule and certified seed were conducted in the village-Pando nagar, block Surajpur, district Surguja during the year *rabi* 2012-13. For collecting information semi structured interview schedule designed on the basis of available literature. Data have been collected by personal

interview or discussion with all respondents. The data analyzed by using appropriate statistical framework such as frequency, mean and percentage.

RESULTS AND DISCUSSION

Plant protection schedule of potato

The data in (Table 1) revealed that before FLD, majority of respondents belonged to low level of knowledge regarding various aspects of use of plant protection schedule i.e. 74.3 per cent of respondents follow time or schedule of use of insecticide for storage pests, seed treatment (71.4%), Use of insecticide for storage pests (68.6%) , time or schedule of use of insecticide (69.0%), use of insecticide (60.0%) & time or schedule of use of fungicide or other chemicals for diseases control (57.1%), respectively. While after FLD, medium level of knowledge regarding various aspects of plant protection schedule i.e. 51.4 per cent of respondents use fungicide or other chemicals for diseases control. In case of low level of knowledge after FLD maximum number of respondents were

use of Insecticide, time or schedule of use of insecticide (28.6%) both.

The data in Table 2 revealed that before FLD, maximum number of respondents was having low level of adoption about seed treatment and time or schedule of use of insecticide/ pesticide for storage pests (77.1%) both. In case of medium level of adoption maximum respondents were use of fungicide or other chemical for diseases control (37.1 %) followed by use of insecticide / pesticide (31.4%), time or schedule of use of fungicide or other chemical for diseases control, use of insecticide/ pesticide for storage pests (28.6 %) while high level of adoption regarding plant protection schedule were 11.4 per cent regarding time or schedule of use of fungicide or other chemical for diseases control. After FLD, maximum number of respondents were having medium level of adoption regarding use of insecticide/ pesticide for storage pests (54.3%) followed by seed treatment, use of insecticide / pesticide, time or schedule for use of fungicide or other chemicals for disease control, respectively. While high level of adoption regarding plant

Table 1. Per cent knowledge level regarding plant protection schedule of potato.

Sr No	Particular	Knowledge level before FLD			Knowledge level after FLD		
		Low	Medium	High	Low	Medium	High
1	Seed Treatment	71.4	28.6	0.0	20.0	51.4	28.6
2	Use of insecticide	60.0	31.4	8.6	28.6	48.6	22.8
3	Time or schedule of use of insecticide	65.7	22.8	11.5	28.6	45.7	25.7
4	Use of fungicide or other chemicals for diseases control	57.1	42.9	0.0	25.7	40.0	34.3
5	Time or schedule of use of fungicide or other chemical for diseases control	69.0	31.4	5.6	20.0	51.4	28.6
6	Use of insecticide for storage pests	68.6	28.6	2.8	25.7	51.4	22.9
7	Time or schedule of use of insecticide for storage pest	74.3	25.7	0.0	20.0	45.7	34.3

Knowledge and Adoption Level

Table 2. Per cent adoption level regarding plant protection schedule of potato.

Sr No	Particular	Knowledge level before FLD			Knowledge level after FLD		
		Low	Medium	High	Low	Medium	High
1	Seed Treatment	77.1	22.9	0.0	14.3	51.4	34.3
2	Use of insecticide	65.7	31.4	2.9	25.7	51.4	22.9
3	Time or schedule of use of insecticide	71.4	22.9	5.7	28.6	37.1	34.3
4	Use of fungicide or other chemicals for diseases control	62.9	37.1	0.0	20.0	42.9	37.1
5	Time or schedule of use of fungicide or other chemical for diseases control	60.0	28.6	11.4	14.3	51.4	34.3
6	Use of insecticide for storage pests	71.4	28.6	0.0	14.3	54.3	31.4
7	Time or schedule of use of insecticide for storage pest	77.1	22.9	0.0	17.1	48.6	34.3

protection schedule were 34.3 per cent about seed treatment, time or schedule of use of insecticide, time or schedule of use of fungicide or other chemical for diseases control, time or schedule of use of insecticide for storage pests, respectively.

Certified seed of potato

Data (Table 3) revealed that level of knowledge regarding use of certified seed of potato before FLD, majority of respondents was medium about time of

sowing (54.3%) followed by earthing up (48.6%) and time of harvesting (45.7 %), respectively. However low level of knowledge were about source of availability of certified seed of potato (82.9%), spacing (65.7%), seed rate (60.0 %), application of fertilizer (57.1 %), respectively. After FLD, majority of respondents were having high level of knowledge about time of harvesting (57.1%), followed by spacing (51.4%), application of fertilizer (48.6%) and seed rate (42.9%), respectively.

Table 3. Per cent knowledge level regarding use of certified seed of potato.

Sr No	Particular	Knowledge level before FLD			Knowledge level after FLD		
		Low	Medium	High	Low	Medium	High
1	Source of availability	82.9	17.1	0.0	8.6	48.6	34.8
2	Variety	82.9	17.1	0.0	5.7	54.3	40.0
3	Seed rate	60.0	37.1	2.9	14.3	42.9	42.9
4	Spacing	65.7	31.4	2.9	8.6	40.0	51.4
5	Time of sowing	31.4	54.3	14.3	5.7	62.9	31.4
6	Application of fertilizers	57.1	34.3	8.6	20.0	31.4	48.6
7	Earthing up	28.6	48.6	22.8	0.0	60.0	40.0
8	Time of harvesting	28.6	45.7	25.7	2.9	40.0	57.1