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Plant protection chemical schedule knowledge and adoption level in redgram growers

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Abstract

The present study was carried out during the year 2015-16 in Kalaburgi district of Northern East zone of Karnataka. The study showed that majority of respondents belonged to low level of knowledge regarding plant protection schedule, time or schedule of use of insecticide/pesticide for field and storage pests (74.3), whereas the Agriculture institute linked trained farmers, the maximum number of respondents were having medium to good level of knowledge about seed treatment, time of schedule of fungicide and other chemicals for diseases control and use of insecticide/pesticide for field and storage pest (51.4%). In case of adoption level maximum number of respondents belongs to low level of adoption about seed treatment and time or schedule of use of insecticide/pesticide for storage pests (69.4%). While after Agri institutes liked maximum numbers of respondents were having medium level of adoption were about use of insecticide/pesticide for storage pests (54.3 %). Regarding use of quality seed of Redgram, majority of respondents belonged to low level of knowledge about source of availability of quality seed of Redgram (82.9%). However, after trainings maximum respondents belonged to medium level of knowledge were about time of sowing (62.9%).

Keywords: adoption level, pesticide, knowledge level, red gram, quality seed

Introduction

Pigeon pea, *Cajanus cajan* (L) Millsp is the second most important pulse crop in India after Bengalgram. It has multiple uses and occupies an important place in the revailing farming systems in the country and vegetarian diet. It also plays an important role in sustainable agriculture by enriching the soil through biological nitrogen fixation along with deep root system of this crop which makes it more suitable for its cultivation under rainfed conditions. District Kalaburgi of Karnataka occupies 3.75 lakh hectares of land with average productivity of 560 kg ha⁻¹ of pigeon pea. Improper plant protection schedule leads to increased infestation of many insect pests as well as attack of diseases in unfavourable 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, field demonstrations on assessment of plant protection schedule and use of quality seed of Redgram conducted during the year 2015-16 at Kalaburgi District. Total number of beneficiaries were 35 from obtained farmers list following objectives to study the level of knowledge, adoption and constraints regarding use of plant protection schedule by Redgram growers.

Materials and Methods

The study carried out in Kalaburgi district of Karnataka. The assessment of use of plant protection schedule and quality seed material use interviews were conducted in the RAWV villages of Kalaburgi district during the year 2015-16. 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 Redgram

The data table revealed that before trainings, 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

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respondents follow time or schedule of use of insecticide for field and storage pests, seed treatment (68.3%), Use of insecticide for storage pests (58.3%), time or schedule of use of insecticide (59.4%), use of insecticide (55%) & time or schedule of use of fungicide or other chemicals for diseases control (49.2%) respectively. While after trainings, 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 trainings the 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 trainings 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 (69.4%) both. In case of medium level of adoption maximum respondents were use of fungicide or other chemical for

diseases control (37.4 %) 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 (22.7 %) while high level of adoption regarding plant protection schedule were 9.5 per cent regarding time or schedule of use of fungicide or other chemical for diseases control. After trainings 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 protection schedule were 22.4 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.

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

S. No	Particular	Knowledge level before trainings			Knowledge level after trainings		
		Low	Medium	High	Low	Medium	High
1	Bio agent Seed Treatment	68.3	28.6	0.0	20.0	51.4	28.6
2	Use of insecticide before flowering and pod stage	55.0	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	49.2	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 field & storage pest	74.3	25.7	0.0	20.0	45.7	34.3

Table 2: Per cent adoption level regarding plant protection schedule of Redgram

S. No	Particular	Knowledge level before trainings			Knowledge level after trainings		
		Low	Medium	High	Low	Medium	High
1	Seed Treatment	78.4	18.7	2.0	13.5	63.4	34.0
2	Use of insecticide	65.7	33.4	2.9	25.7	51.4	22.9
3	Time or schedule of use of insecticide	71.4	22.9	5.7	22.7	37.1	22.4
4	Use of fungicide or other chemicals for diseases control	62.9	31.4	0.0	20.0	42.9	37.1
5	Time or schedule of use of fungicide or other chemical for diseases control	60.0	32.6	9.5	14.3	51.4	34.3
6	Use of insecticide for storage pests	71.4	54.4	1.0	14.3	54.3	31.4
7	Time or schedule of use of insecticide for storage pest	69.4	20.7	0.0	17.1	48.6	34.3

Conclusion

The present study reveals that the intervention of trainings on use of plant protection schedule and quality seed of Redgram by Department DATC and KVK facilitated the acquisition of knowledge and enhances the adoption regarding plant protection schedule and Redgram seeds. Finding of this study will help to researcher to plan, conduct & guideline them to draw research programme or strategies of farmers benefit.

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