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CONSTRAINTS FACED BY CHICKPEA GROWERS IN ADOPTION OF INTEGRATED PEST MANAGEMENT PRACTICES

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Abstract

This study was conducted in Durg district of Chhattisgarh during 2014–15 in the purposively selected villages. The study aimed to assess the constraints faced by chickpea growers in adoption of IPM practices. Information was obtained with help of interview schedule by personal interview. Collected data were analyzed by using suitable statistical tools. The findings of this study revealed that the majority (91.66%) of the respondents reported, non availability of bio-agents (NPV, parasites etc.), followed by Non-availability of inputs at a time (bio-pesticides, traps, herbicides etc.) (90.00%), lack of proper training conduct for IPM practices by extension agent or agencies (80.83%) are considered as major constraints. As regards to suggestions of chickpea growers for minimizing the constraints, majority of the chickpea growers said that availability of inputs at proper time, training by extension agencies about IPM practices and Technical information & knowledge to the farmers about IPM practices should be provided by RAEO at village level.

Key words : IPM, adoption, chickpea, constraints, suggestions.

Introduction

Chickpea is most important pulse crop of India in terms of both area and production. India is the largest producer of chickpea in the world sharing 65.25 and 65.49 per cent of the total area (11.97 m ha) and production (10.89 mt), respectively. In Chhattisgarh, the area, production and productivity of chickpea in 2010-2011 was 2.519, 2.415 and 891, respectively (000ha. 000mt tone, kg/ha). Major districts of Chhattisgarh where chickpea is being cultivated are Durg, Kabirdham, Bilaspur, Rajnandgaon, Raipur, Sarguja, Dhamtari, Kanker, Jashpur, Jagdalpur and Raigarh. During 2011-2012, Durg district having 1st position in cultivating area of chickpea 102.46 thousand ha with production of 110.99 thousand metric tons, Chickpea is an important source of energy, protein and soluble and insoluble fiber. Mature chickpea grains contain 60-65% carbohydrates, 6% fat, and between 12% to 31% protein – higher than any other pulse crop. Chickpea is also a good source of vitamins (especially B vitamins) and minerals like potassium and phosphorus.

Materials and Methods

Location of the study

The present study was conducted in Durg district of Chhattisgarh state during the year 2014-15. Chhattisgarh State is divided into 27 districts *i.e.*, Sarguja, Balrampur, Surajpur, Koria, Bilaspur, Mungeli, Korba, Jashpur, Kawardha (Kabirdham), Durg, Balod, Bemetara, Raipur, Balodabazar, Gariyaband, Janjgir-Champa, Raigarh, Rajnandgoan, Dhamatari, Mahasamund, Kanker, Bastar, Kondagaon, Sukma, Dantewada, Narayanpur and Bijapur. Out of these, Durg district was selected purposively because this district having maximum area and production of chickpea in the state. Out of these, Durg district was selected purposively because this district having maximum area and production of chickpea in the state. During the study period, Durg district has 3 blocks, all 3 blocks were selected namely, Durg, Dhamdha and Patan. A list of chickpea growers of the selected blocks were obtained from the office of the Govt. Agriculture Department of Durg district and from each selected block, 40 farmers those were doing IPM practices in chickpea cultivation were selected randomly. In this way, total 120 chickpea growers were selected as respondents.

Methods of data collection

The data were collected personally by the researcher in cooperation with RAEOs and other officials of the blocks by using pre-tested interview schedule.

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Results and Discussion

Constraints faced by chickpea growers in adoption of Integrated pest management practices in chickpea cultivation

Multiple responses were taken to ascertain the constraints faced by chickpea growers in adoption of IPM practices, which are presented in table 1.

So far as the problems faced by chickpea growers in adoption of IPM practices are concerned, it was found that, majority of the respondents were reported to have non availability of bio-agents (91.66%), followed by non-availability of inputs at a time (90.00%), lack of proper training conduct for IPM practices by extension agent or agencies (80.83%), lack of knowledge about use of inputs at proper time (71.66%), lack of media advertisement (70.00%), lack of technical knowledge of IPM practices (66.66%), non-availability of resistant varieties (62.50%), high costs of inputs (50%), lack of knowledge about appropriate selection and dose of insecticide and weedicide (41.16%) as important constraints faced by them.

Suggestions to overcome the constraints

As regards suggestions of chickpea growers for minimizing the constraints (table 2) faced by them during adoption of IPM practices of chickpea includes inputs, which should be easily available at the time in market [bio-agents, bio-pesticides, resistant varieties and traps (90.00%)]. The other suggestions made by respondents

Table 1 : Constraints faced by the chickpea growers in adoption of Integrated pest management practices.

S. no.	Constraints	Frequency	Percentage	Rank
1.	Non–availability of inputs at the proper time (bio-pesticides, herbicides, traps etc).	108	90.00	II
2.	High cost of inputs.	60	50.00	VIII
3.	Lack of proper training for IPM practices by extension agencies	97	80.83	III
4.	Lack of knowledge about use of inputs at proper time.	86	71.66	IV
5.	Lack of media advertisement.	84	70.00	V
6.	Lack of technical knowledge of IPM Practices.	80	66.66	VI
7.	Non-availability of bio-agents.(N.P.V and practices)	110	91.66	I
8.	Lack of knowledge about appropriate selection of Insecticides and herbicides.	50	41.66	IX
9.	Non – availability of resistant varieties.	75	62.50	VII

*Frequency based on Multiple Responses.

Table 2 : Suggestions of chickpea growers for minimizing the constraints faced by them during the adoption of Integrated pest management practices.

S. no.	Suggestions	Frequency	Percentage	Rank
1.	Inputs should be easily available at the time in market (bio-agents, bio-pesticides, resistant varieties and traps)	108	90.00	I
2	Minimum support price of input should be fixed by the Government	60	50.00	VI
3	Extension agencies should conduct training about IPM practices	96	80.00	II
4	Regular publicity of IPM on TV, radio and newspaper should be provided.	59	49.16	VII
5	Extension agent or agency should convey information at right time and provide technical knowledge regarding use of IPM material like bio-agents and pheromone traps etc	83	69.16	III
6	Knowledge should be increased in various aspects of IPM practices of chickpea *i.e.* use of proper dose of insecticide through systematic training programmes.	67	55.83	V
7	Technical information and knowledge to farmers about IPM practices should be provided by RAEOs at village level.	80	66.66	IV
8	Field visit should be organized by extension personnel.	55	45.83	VIII

*Frequency based on Multiple Responses.

include extension agencies should conduct training about IPM practices of chickpea (80%), extension agent or agency should convey information at right time and technical knowledge regarding use of IPM materials like bio-agents and pheromone traps etc. (69.16%), technical information and knowledge to farmers about IPM practices should be provided by RAEOs at village level (66.66%). Knowledge should be increased in various aspects of IPM practices of chickpea *i.e*. use of proper dose of insecticide through systematic training programmes (55.83%). Minimum support price of inputs should be fixed by the government (50.00%), regular publicity of IPM practices in chickpea cultivation on TV, radio and newspaper should be provided (49.16%). Field visit should be organized by extension personnel (45.83%).

Conclusion

From the above findings, it can be concluded that the maximum number of chickpea growers were experienced various constraints in adoption of IPM practices, most of the respondents highlighted non-availability of bio-agents, non availability of inputs at proper time (bio-pesticides, traps, herbicide etc.), lack of proper training conduct for IPM practices by extension agent or agencies, lack of technical knowledge and lack of knowledge about use of inputs at proper time as the common constraints and major suggestions offered by the chickpea growers was availability of inputs at proper time (bio-pesticides, traps etc.), training by extension agencies about IPM practices and technical information and knowledge to the farmers about IPM practices should be provided by RAEO at village level were given by most of the chickpea growers to manage the relevant constraints as faced by them during chickpea production.

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