



P-ISSN: 2349-8528
 E-ISSN: 2321-4902
 IJCS 2020; 8(1): 350-352
 © 2020 IJCS
 Received: 06-11-2019
 Accepted: 10-12-2019

Varsha Upadhyay
 Ph.D., Scholar, Department of
 Extension Education,
 Jawaharlal Nehru Krishi
 Vishwavidyalaya, Madhya
 Pradesh, India

SK Agrawal
 Professor, Department of
 Extension Education,
 Jawaharlal Nehru Krishi
 Vishwavidyalaya, Madhya
 Pradesh, India

Sonam Upadhyay
 Ph.D., Scholar, Department of
 Extension Education,
 Jawaharlal Nehru Krishi
 Vishwavidyalaya, Madhya
 Pradesh, India

Corresponding Author:
Varsha Upadhyay
 Ph.D., Scholar, Department of
 Extension Education,
 Jawaharlal Nehru Krishi
 Vishwavidyalaya, Madhya
 Pradesh, India

Knowledge of improved chickpea production technology of chickpea growers benefited under national food security mission of Narsinghpur district of Madhya Pradesh

Varsha Upadhyay, SK Agrawal and Sonam Upadhyay

Abstract

Chickpea (*Cicer arietinum*) generally known as “Chana”/ “Gram” or “Bengal gram” is an important leguminous food grains in India. Chickpea is the world’s third most important food legume with 96% cultivation in the developing countries. The present study entitled “Knowledge of Improved chickpea production technology of chickpea growers benefited under National Food Security Mission of Narsinghpur district of M.P.” was undertaken to evaluate the knowledge level of the chickpea growers towards the improved production technology. There were 120 respondents were selected for the investigation. Total five villages were selected from Narsinghpur block of Narsinghpur district. The findings revealed that higher percentage (50.00%) of chickpea growers had high knowledge of improved chickpea production technology.

Keywords: Chickpea, knowledge, national food security mission, production

Introduction

The National Food Security Mission (NFSM) was launched in the year 2007 with the overall objective is to facilitate and accelerates the sustainable transformation of the Indian agriculture so that it can support poverty alleviation and income generation through collaborative development and application of agricultural innovations by the public organizations in partnership with farmers' groups, the private sectors and other stakeholders. The mission is being implemented in 312 districts of 17 states in India for food crops like rice, wheat and pulses. Total states come under rice, wheat and pulses are 14, 9 and 14 respectively and districts 136, 141 and 141 respectively. Mission has a focused approach. Districts with large area under food crops and despite yield potential having less productivity less than states have been selected. Some of the distinctive features of the selected districts include poor rural infrastructure, poor human resource development, inadequate power availability, low institutional credit, no developed markets and poverty. The area targeted under the scheme is 20 mha of rice, 13 mha of wheat and 17 mha of pulses covering about 40 per cent of cropped area for focused attention. The National Food Security Mission in Madhya Pradesh is being implemented since its inception in totality as per the norms and guidelines of Government of India. All the districts (51) have been selected under NFSM.

Materials and Methods

The Narsinghpur district comprises 206 villages but present investigation was carried out in five villages selected because having maximum number of chickpea growers benefited under National Food Security Mission. A comprehensive list of different categories (small, medium-large farmer) of chickpea growers under NFSM was prepared from selected villages with the help of RAEs. From each category (small, medium, large farmers) 40 chickpea growers were selected by using simple random sampling and twenty four (24) chickpea growers were selected from each selected villages randomly, thus the total 120 chickpea grower were selected as a sample size for the investigation

Result and Discussion

Table 1: Distribution of Ickpea growers according to their level of Knowledge in different package of practices of chickpea

S. No	Package of practices	Knowledge			Mean Score	Rank
		Complete (%)	Partial (%)	No (%)		
1	Field Preparation					
1.1	Type of soil	120(100%)	-	-	3	I (a)
1.2	Summer deep ploughing	100(83.33%)	20(16.64%)	-	2.83	III
1.3	No. of ploughing	60(50.00%)	35(29.16%)	25(20.84%)	2.24	XIV(a)
1.4	Farm yard manure	63(52.50%)	37(30.83%)	20(16.64%)	2.35	XI
2	Seed & Sowing Management					
2.1	Seed rate	37(30.84%)	38(31.66%)	45(37.50%)	1.93	XVIII(a)
2.2	Spacing row to row	37(30.84%)	38(31.66%)	45(37.50%)	1.93	XVIII (b)
2.3	Spacing plant to plant	37(30.84%)	38(31.66%)	45(37.50%)	1.93	XVIII(c)
2.4	Seed treatment	53(44.18%)	59(49.16%)	08(06.66%)	2.89	II
2.5	High yielding variety	72(60.00%)	48(40.00%)	-	2.60	VIII
3	Fertilizer management					
3.1	NPK	60(50.00%)	35(29.16%)	25(20.84%)	2.24	XIV(b)
3.2	Time of nitrogen application	78(65.00%)	42(35.00%)	-	2.65	VII
3.3	Time of phosphorus application	62(51.66%)	58(48.54%)	-	2.51	IX
3.4	Time of potassium application	60(50.00%)	40(33.33%)	20(16.67%)	2.33	XII (a)
3.5	Bio-fertilizer	85(70.33%)	35(29.17%)	-	2.70	VI
4	Irrigation management					
4.1	Stages of irrigation	120(100%)	-	-	3	I (b)
4.2	No. of application	120(100%)	-	-	3	I (c)
5	Weed Management					
5.1	Common weeds	120(100%)	-	-	3	I (d)
5.2	Inter-culture	45(37.50%)	58(48.33%)	17(14.67%)	2.23	XV
5.3	Nipping	120(100%)	-	-	3	I (e)
6	Plant Protection					
6.1	Insect identification	60(50.00%)	40(33.33%)	20(16.67%)	2.33	XII (b)
6.2	Insect control	65(54.16%)	48(40.00%)	07(5.84%)	2.18	XVI
6.3	Disease identification	58(48.33%)	38(31.67%)	24(20.00%)	2.28	XIII
6.4	Disease control	58(48.33%)	50(41.67%)	12(1.00%)	2.38	X
7	Harvesting					
7.1	Duration	97(80.84%)	23(19.16%)	-	2.80	V
7.2	Harvesting tool	120(100%)	-	-	3	I (f)
7.3	Method of harvesting	120(100%)	-	-	3	I (g)
7.4	Threshing	98(81.66%)	22(18.34%)	-	2.81	IV
7.5	Yield	45(37.50%)	50(41.66%)	25(20.83%)	2.16	XVII
8	Storage					
8.1	Storage	120(100%)	-	-	3	I (h)

Table no. 1 shows that the chickpea growers had 100 per cent knowledge of the field preparation practices, irrigation management (stages of irrigation and number of irrigation) common weeds, nipping, harvesting tool, method of harvesting and storages. The total mean score of these practices was 3 with the rank I(a), I (b), I (c), I (d), I(e), I (f), I (g), I (h) respectively. The 43.33 per cent of chickpea growers had complete knowledge of seed treatment followed by 49.16 per cent had partial and 6.66 per cent had no knowledge with mean score 2.89 with the rank II. 83.33 per cent of chickpea growers had complete knowledge about summer deep ploughing followed by 16.64 per cent had partial knowledge with mean score 2.83 with the rank III. In case of threshing 81.66 per cent of chickpea growers had complete knowledge and 18.34 had partial knowledge with mean score 2.81 with rank IV. 80.00 per cent of chickpea growers had complete knowledge of duration of crop followed by 19.16 per cent had partial knowledge with mean score 2.80 with rank V. About bio-fertilizer 70.33 per cent of chickpea growers had complete knowledge and 29.17 per cent had partial knowledge with mean score 2.70 with rank VI. Application of nitrogen 65 per cent of chickpea growers had complete knowledge and 35 per cent had partial knowledge with the mean score 2.65 with rank VII. About high yielding variety 60 per cent had

complete knowledge and 40 per cent had partial knowledge with mean score 2.60 with rank VIII. 51.66 per cent had complete knowledge about the time of phosphorus application followed by 48.54 per cent had partial knowledge with mean score 2.51 with rank IX. About disease control 48.33 per cent had complete knowledge and 41.67 per cent had partial and only one per cent had no knowledge with the total mean score 2.38 with rank X. 52.50 per cent had complete knowledge about farm yard manure followed by 30.83 had partial and 16.64 had no knowledge with total mean score 2.35 with rank XI. The time of potassium application and insect identification 50.00 per cent of chickpea growers had complete knowledge followed by 33.33 per cent had partial and 16.67 per cent had no knowledge with the total mean score of these two statements were 2.33 with rank XII (a), XII (b) respectively. 48.33 per cent had complete knowledge about disease identification and 31.67 per cent had partial and 20.00 per cent had no knowledge with mean score 2.28 with rank XIII. In case of number of ploughing and the doses of NPK 50.00 per cent of chickpea growers had complete knowledge followed by 29.16 per cent had partial and only 20.84 per cent had no knowledge with mean score 2.24 with rank XIV (a), XIV (b) respectively. In case of inter-culture operations 37.50 per cent of chickpea growers had complete

knowledge followed by 48.33 per cent had partial and only 14.67 per cent had no knowledge with total mean score 2.23 with rank XV. 54.16 per cent had complete knowledge of insect control and 40.00 per cent had partial knowledge and only 5.34 had no knowledge with total mean score 2.18 with rank XVI. 37.50 per cent chickpea growers had complete knowledge about yield followed by 41.66 per cent had partial and 20.83 had no knowledge with total mean score 2.16 with rank XVII. In case of seed rate, spacing row to row, spacing plant to plant 30.84 had complete knowledge followed by 31.66 had partial and 37.50 had no knowledge with the total mean score 1.93 with the rank XVIII (a), XVIII (b), and XVIII (c) respectively.

Table 2: Distribution of chickpea growers according to knowledge of improved chickpea production technology

S. No	Categories	Frequency	Percentage
1.	Low (up to 20 scores)	24	20.00
2.	Medium (21 to 40 scores)	36	30.00
3.	High (Above 40 scores)	60	50.00
	Total	120	100.00

It was observed from Table 2 that out of total chickpea growers, 20.00 had low knowledge of improved chickpea production technology whereas 30.00 per cent chickpea growers had medium knowledge and 50.00 per cent of chickpea growers had high knowledge of improved chickpea production technology. Thus it can be concluded that higher percentage (50.00%) of chickpea growers had high knowledge of improved chickpea production technology

Conclusion

In case of knowledge of improved chickpea production technology, the study revealed that higher percentage of chickpea growers 50.00 per cent had high knowledge of improved chickpea production technology. This finding is supported by Sharma (2007) ^[3] he found that majority 81 per cent of the respondents were high level of knowledge about the recommended production technology of chickpea. This study revealed that the chickpea growers had 100 per cent knowledge of some practices i.e., field preparation practices, irrigation management (stages of irrigation and number of irrigation) common weeds, nipping, harvesting tool, method of harvesting and storages.

Reference

- Burman AR, Singh SK, Singh L, Singh AK. Adoption of improved pulses production technologies and related constraints in Uttar Pradesh". Indian Journal of Pulses Research. 2006; 19(1):104-106.
- Shakya MS. A study on adoption behavior of chickpea growers in Indore district of Madhya Pradesh. M.Sc. (Ag.) Thesis (unpublished), JNKVV, Jabalpur, 2007.
- Sharma Pankaj. A study on adoption behavior of chickpea production technology among farmers of Aron block of Guna district of M.P. M.Sc. (Ag.) Thesis, JNKVV, Jabalpur, 2007.
- Tripathi SK, Mishra B, Singh P. Knowledge extent of farmers about chickpea production technology. Indian Research Journal of Extension Education. 2008; 6(3):23-26.
- Sharma P. A study on training needs of gram growers in Jabalpur block of Jabalpur district (M.P.) M.Sc. (Ag.) Thesis (unpublished), JNKVV, Jabalpur, 2009.

- Garg RP. A study on technological gap about recommended chickpea production technology among growers of Sihora block of Jabalpur (M.P.) M.Sc. (Ag.) Thesis (unpublished), JNKVV, Jabalpur, 2010.
- Uikey S. A study on training needs of chickpea growers in Jabalpur block of Jabalpur (M.P.) M.Sc. (Ag.) Thesis (unpublished), JNKVV, Jabalpur, 2010.
- Khare AL, Wakle PK, Mankar DM, Salame SP, Deshmukh, Panjabraov. Farmers Knowledge in Improved Cultivation Practices of Gram. Indian Journal of Applied Research. 2013; 3:10.