



# KNOWLEDGE AND ADOPTION INDEX OF CHICKPEA PRODUCTION TECHNOLOGY AMONG THE SMALL FARMERS OF HOSHANGABAD DISTRICT

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## Abstract

An attempt was made to study the knowledge level and adoption level of chickpea production technology of small farmers of Hoshangabad district. The data from 50 farmers of two cluster of Hoshangabad district of Madhya Pradesh study were collected through personal interview schedule by using random sampling method. Knowledge index was found maximum in harvesting time and methods (80.2%) whereas adoption index was found 68.40%.

**Key Words:** Chickpea, knowledge index, Adoption index, Training, Need.

## Introduction

Chickpea (*Cicer arietinum L.*), one of the major pulse cultivated and consumed in India. Chickpea is a cheap source of protein compared to animal protein. In India, chickpea accounts for about 45% of total pulses produced in the country. Similar to the case of other pulses, India is the major producing country for chickpea, contributing for over 75% of total production in the world. India is also the largest consumer of chickpea in the world. As a result the country occupied second place in world despite contributing for about 70% of worlds total production.

The area under chickpea crop is increasing however the increase in production is proportionally very less. The reasons contributed to various factors including wilt diseases, insect infestation, labour requirement and insufficient cash in hand. Lack of technical knowledge hindering the option of chickpea production technologies among small farmers (2.5 - 5.0ha). Training is the critical input for quick transfer of technology and way to modernize agriculture. Thus the importance of training is an indispensable instrument for human resource development at any level cannot be ignored. In order to make any training meaningful and effective the training needs of the farmers so that the specific subject matter of training could be determined on the basis of the

assessment need. (Choudhary A.K. (1971), Farooqui *et al.* (1992), Gupta *et al.* (2008). Bajpai *et al.* (2014). Hence an attempt was made to study with the objectives to analyze the knowledge, adoption and areas of training need of small chickpea growers.

## Materials and Methods

The present study was carried out in the purposively selected Hoshangabad district of Madhya Pradesh during 2014-2015 under pulse production programme, National food security mission, Government of India 2015. Four villages namely Rohna, Palashdoh, Bamohouri and Bamuriya were selected purposively on the basis of productivity performing last five years. All four villages divided in two cluster, cluster I and cluster II. In each cluster 25-25 farmers were selected randomly for making a sample of fifty chickpea growers. The data were collected by personal interview method with the help of pre-tested schedule. Thee knowledge and adoption index pertaining to chickpea production technologies was measured on three-point continuum as adequate, partial and poor and score of 3,2 and 1 was assigned respectively. With the help of index, score for different component of chickpea technologies were worked out to make interferences. The training needs of each major subject matter area was assessed using a three point rating scale such as much needed, needed and not needed was 3, 2

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and 1 respectively (Singh *et al.* 2002)

## Results and Discussion

From the table 1 the overall knowledge index was found 41.41. Harvesting time and methods (80.21%), Weed management methods (61.00%), Fertilizer recommendation and manuring (58.40%), Irrigation time and frequency (50.50%), Seed treatment (44.24%), Seed rate(31.22%), Pest management(31.18%), Row spacing (28.51%), Disease management (26.16%), Improved varieties (22.50%) and Time of sowing (21.61%).

**Table 1:** Knowledge level and adoption behavior of farmers about chickpea production technology (%).

S. No.	Components	Knowledge Index	Adoption Index
1.	Improved varieties	22.50	27.50
2.	Seed rate	31.22	61.25
3.	Row spacing	28.51	60.66
4.	Time of sowing	21.61	38.52
5.	Seed treatment	44.24	29.65
6.	Fertilizer recommendation and manuring	58.40	35.41
7.	Irrigation time and frequency	50.50	41.46
8.	Weed management methods	61.00	46.51
9.	Pest management	31.18	68.40
10.	Disease management	26.16	37.63
11.	Harvesting time and methods	80.21	63.39
<b>Mean</b>		<b>41.41</b>	<b>46.40</b>

**Table 2:** Training needs of chickpea growers in major problems.

S.No.	Areas	Mean score	Rank
1.	Seed treatment	2.75	II
2.	Sowing practices	1.80	IV
3.	Weed Management	1.50	V
4.	Pest control	2.98	I
5.	Disease control	2.15	III
6.	Use of organic practices	1.40	VI

Adoption index of chickpea production technology by small chickpea growers was presented in Table 1 the overall index was found 46.40. The adoption index was more in 68.40% in pest management followed by Harvesting time and methods (63.39%), Seed rate (61.25%) and row spacing (60.66%). Whereas, the adoption index found more than 40 and below than 60 were observed in case of Weed management methods (46.51%) and Irrigation time and frequency (41.46%) respectively. The least adoption index areas was observed as Time of sowing (38.52%), Disease management (37.63%), Fertilizer recommendation and manuring (35.41%), Seed treatment (29.65%), Improved varieties(27.50%) respectively.

**Areas of training needs:** Results revealed in Table 2 the farmers needed high training need in areas of Pest control (2.98) because of lacking knowledge of infestation and management practices of gram pod borer followed by Seed treatment (2.75), Disease control (2.15), Sowing practices (1.80), Weed Management (1.50) and Use of organic practices (1.40).

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