



E-ISSN: 2278-4136
P-ISSN: 2349-8234
JPP 2019; SP3: 72-73

Umesh Babu
Scientist Genetics and Plant
Breeding KVK. Bahraich
Ajmer, Rajasthan, India

Mahesh Pal
Scientist Agriculture Extension
K.V.K. Sant Kabir Nagar and
BU Ajmer, Rajasthan, India

N Pratap
Scientist Genetics and Plant
Breeding KVK. Bahraich, KVK
Varanshi Ajmer, Rajasthan,
India

JP Singh
Sr. Scientist Agronomy, Ajmer,
Rajasthan, India

Shailendra Singh
Sr. Scientist Agronomy K.V.K.
Sant Kabir Nagar and BU
Ajmer, Rajasthan, India

SK Verma
Sr. Scientist & Head KVK.
Bahraich Ajmer, Rajasthan,
India

RP Singh
Associate Professor, BU Ajmer,
Rajasthan, India

Correspondence
Umesh Babu
Scientist Genetics and Plant
Breeding KVK. Bahraich
Ajmer, Rajasthan, India

(Special Issue- 3)
National Conference
**“Sustainable Agriculture and Recent Trends in Science &
Technology”**
(February 22nd & 23rd, 2019)

Technological gap in adoption of pulse crop production

Umesh Babu, Mahesh Pal, N Pratap, JP Singh, Shailendra Singh, SK Verma and RP Singh

Abstract

The paper is based on a survey conducted in Malauli village of Hainsar Block in Sant Kabir Nagar District. 50 farmers were selected randomly to collect the information about various practices and constraints in pulse crop production. Maximum number of farmers had the knowledge about intercultural practices followed by method of sowing, time of irrigation, fertilizer application, varieties and seed treatment. The main constraint in adoption of pulse crop production was the lack of knowledge about the recommended practices followed by damage of crop by wild animals.

Based on the level of knowledge and constraints in adoption of pulse crop production a strategy has been suggested as: technical know-how about the recommended practices of pulse crop production should be provided properly, personal contact to the farmers and mini Kitts should be made available to the weaker farmers.

Keywords: Technological gap, pulse crop production

Introduction

The importance of pulse crops in agricultural economy of India is well established. India has the prime position in pulse production in the world scenario. In the context of widespread protein-calorie, malnutrition and under nutrition, pulses will be considered the major source of protein in diet for vegetarian. For balanced amino-acid composition of cereal and pulse protein mixture is equally good as milk protein. Further, pulse crops are also play an important role in restoring and maintaining soil fertility and providing nutritious feed and fodder to livestock production.

Pulse production in India could not increase as the growth of population and consequently its availability per capita/day is declining year after year. It is believed that, 55g. Pulse per capita/day would meet dietary protein requirement. At medium population growth rate (1.6%) the requirement of pulse for human consumption for the year 2017 and 2027 AD will be 24.00 and 27.9 million tons respectively.

The considerable gap in production of pulse crops in the country mainly attributes towards technological gap in adoption of package of improved practices of pulse crop production. Therefore, it is essential to investigate the factors responsible for this technological gap resulting to poor yield. This investigation was under taken with the following objectives.

1. To ascertain the level of knowledge about the recommended package of practices in pulse crops.
2. To identify specific constraints in adoption of recommended package of practice of pulse crops.
3. To suggest a suitable technology for accelerating the adoption of recommended package of practices.

Methodology

On the basis of maximum area covered under pulse crops, the block Hainsar was purposively selected in the district SantKabir Nagar of Uttar Pradesh. For selection of village same criteria

was followed and Malauli village of Hainsar block was selected for the study. Although the agro-climatic conditions are suited for growing pulse crops in this district but, the yield potential is very less. For selection of farmers, random method was used and 50 farmers were selected from the village of Malauli. For collection of relevant information from the farmers, the personal interview method was used.

Findings

There were eight recommended practices of pulse crops production. Information were obtained from the cultivars about these practices. Table-1 explains the level of knowledge divided into three categories i.e. low, medium and high of the farmers about the various practices of pulse production along with the number of farmers and their percentage.

Table 1: Level of knowledge among the farmers about various practices of pulse crops production.

Sl. No.	Practices	Knowledge level of the formers							
		Low		Medium		High		Total	
		No.	%	No.	%	No.	%	No.	%
1.	Varieties	20	40	13	26	4	8	37	74
2.	Seed treatment	22	44	7	14	5	10	34	68
3.	Method of sowing	20	40	15	30	9	18	44	88
4.	Fertilizer	22	40	16	30	9	18	44	88
5.	Time of irrigation	26	52	11	22	5	10	42	84
6.	Intercultur	11	22	23	46	14	28	48	96
7.	Insect control	13	26	4	8	2	4	19	38
8.	Disease control	10	20	4	8	3	6	17	34

It is revealed from the table-1 that, most of the farmers had low level of knowledge about various improved practices of pulse crop production. Practice wise numbers of farmers were varying from 20 to 64 percent who had low level of knowledge followed by medium and high level of knowledge in which the number of farmers were varying from 4 to 23 percent and 2 to 14 percent respectively reported by (Ali *et.al.*, 2002, Sharma *et.al.*, 2001 and Krishna *et.al.*, 2007) ^{2, 3,}

^{5]}.

On the total, maximum number of farmers (96%) had the knowledge about interculture practice followed by method of sowing (88%), time of irrigation (84%), fertilizer application (80%), varieties (74%) and seed treatment (68%). The minimum number of farmers had the knowledge about insect and disease control practices viz 38 and 34 percent respectively.

Table 2: Constraints in adoption of pulse crops production N = 50

Sl. No.	Constraints	Cultivars		
		N	Percentage	rank
1.	Lack of knowledge about the recommended practices of pulse production technology	46	92	I
2.	Non-availability of improved variety of seed	38	76	III
3.	Lack of agricultural labourers	26	52	VI
4.	Non-availability of inputs in time	36	72	IV
5.	Lack of capital	32	64	V
6.	Damage of crops by wild animals	44	88	II

Table-2 shows that most of the farmers (92 percent) reported (Singh *et.al.*, 2007, Paul *et.al.*, 2001 and Chaudhary, 2013) ^{1, 4, 6]} about the lack of knowledge about the recommended practices of pulse production technology which is the critical constraint followed by damage of crop by wild animals (88 percent), non-availability of improved variety of seed (76 percent), and non-availability of inputs in time (72 percent). Lack of capital (64 percent). Whereas only 52 percent of the farmers had told the constraints about the lack of agricultural laborers.

Conclusion

It is revealed from the study that the considerable gap in adoption of pulse crop production technology mainly attributed to the lack of knowledge about the recommended practices of pulse crop production which was followed by damage of crop by wild animals.

Suggestion for Suitable Strategy

On the basis of findings it is suggested on priority basis that, the technical know-how about the recommended practices of pulse crop production should be provided properly, extension personnel and mini kits should be made available to the weaker farmers for encouraging them to adopt new practices

of pulse crop production.

References

1. Singh SS, Yadav SK. Comparative efficacy of insecticides, bio-pesticides and neem formulation against *Helicoverpa armigera* on chickpea. 2007; 15(2):299-302.
2. Ali SS, Sharma SB. Distribution and importance of plant parasite nematodes associated with chickpea in Rajasthan state, India. *Pulses Res.* 2002; 15(1):57-65.
3. Sharma Surabh, Tyagi BD, Sharma GC, Singh SP. Constraints in adoption of improved rice production technology, *Agricultural extension review.* 2001; 13(2): 17-22.
4. Paul Narinder, Punjabi NK, Paul Shashi. Constraints of Mushroom cultivation, *Agricultural Extension review.* 2001; 13(2):26-31.
5. Krishna Kant, Kanaujiya, Kanaujiya S. Role of plant density and biotic factors on population dynamics of *Helicoverpa armigera* (Huber) in chickpea. 2007; 15(2):303-306.
6. Anil Kumar Chaudhary. Technological and extension yield gap in pulse crop in Mandi district of Himachal Pradesh, India. *Ind. J Soil. Cons.* 2013; 41(1):88-97.