



Research Article

Constraints in adoption of transplanting method of redgram cultivation

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SUMMARY : The study was conducted during the year 2011-12 in Bidar district of Karnataka. This district selected purposively based on the area under transplanted red gram cultivation is highest and maximum number of demonstrations are conducted by KVK, Bidar. Total of 120 (*i.e.* 60 demonstration and 60 non-demonstration farmers) samples were selected for the study by simple random sampling method. The respondents were asked to indicate the constraints faced in adoption of the recommended practices. Obtained problems were expressed in terms of frequency and percentage. The study revealed that, with regard to demonstration farmers the foremost constraints were 78.33 per cent cited low prices to the produce, followed by non availability of labour (75.00%), high cost of cultivation practices (66.67%) and pest management problem (60.00%). In case of non-demonstration farmers majority of farmers expressed problems like high cost of cultivation practices (81.67%), lack of irrigation water (73.33%) and non-availability of labours. While, 60.00, 53.33 and 51.67 per cent farmers had constraints of lack of awareness, low price to the product and lack of knowledge, respectively.

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KEY WORDS :

Adoption,
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BACKGROUND AND OBJECTIVES

India is the largest producer and consumer of pulses in the world accounting for 33 per cent of the world area and 27 per cent of the world production of pulses. In India, pulses were grown on 23 million hectares area with a production of 15 million tones, with a yield of 600 kg per hectare (agropedia.iitk.ac.in, 2010). Redgram or Tur or Arhar [*Cajanus cajan* (L) Millsp] is a protein rich staple food and consumed in the form of split pulse as Dal, but also consumed as vegetable in many countries. Redgram is of dietary importance with seed protein content of about 21 per cent, which is highest in the case of legumes. Being a drought resistant crop, it is suitable for dryland farming.

India occupies 90 per cent of world redgram area and accounts for 80 per cent of world production of redgram. According to fourth advanced estimates of 2010-11 released redgram occupies an area of 4.42 million hectares and production of about 2.89 million tonnes, having an average yield of 655 kg per ha. In Karnataka

redgram is largely grown in northern parts, especially in Gulbarga and Bidar districts. Hyderabad- Karnataka region is called as pulse bowl of Karnataka and redgram is one of the most important pulse crop grown in this region.

Recent technological intervention of transplanting method of redgram cultivation is one of the alternate improved practices to overcome late sowing and related lower yields of redgram. In addition to advantages of low pest and disease occurrence and higher marginal returns, now it is cultivated mainly in Bidar and Gulbarga districts in the days to come it may occupy larger redgram cultivated area in the state especially in northern parts of Karnataka. During 2010-11, about 4360 hectares of area was under transplanted Redgram (KVK, Bidar). Hence, the present study is proposed to know the different dimensions of redgram cultivation in the changed scenario with specific objective to study the constraints in adoption of transplanting method of redgram cultivation practices.

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RESOURCES AND METHODS

The study was conducted in the year 2011-12 in Bidar district of Karnataka. This district was selected purposively based on the area under transplanted red gram cultivation was highest and maximum number of demonstrations were conducted by Krishi Vigyan Kendra, Bidar. Bidar district comprises of five taluks namely, Aurad, Basav Kalyn, Bhalki, Bidar and Humnabad. Out of five taluks, three taluks namely Aurad, Bidar and Humnabad were purposively selected, because they had highest area under transplanting method of red gram cultivation and highest number of demonstrations on transplanting method of redgram cultivation was conducted by KVK, Bidar. From each taluka, four villages and from each village, ten farmers were selected by following highest number of demonstration on transplanting method of redgram cultivation farmers available in the village and highest area under transplanting redgram cultivation. Again from each village, five farmers from the list who have undergone demonstration on transplanting redgram conducted by KVK, Bidar and five non-demonstration farmers who were practicing transplanting method of redgram cultivation from the each village were randomly identified for making total sample size of 120 (*i.e.* 60 demonstration and 60 non-demonstration farmers). During investigation, respondents expressed many reasons due to which they could not use recommended practices in their farming. The reasons or causes were termed as constraints in the study. The respondents were asked to indicate the constraints faced in adoption of the recommended practices. Obtained problems were expressed in terms of frequency and percentage.

OBSERVATIONS AND ANALYSIS

The observations of the present study as well as relevant analysis have been summarized under the following heads:

Constraints faced by the respondents in adoption of transplanting method of redgram cultivation:

Results from Table 1 revealed that, with regard to demonstration farmers the foremost constraints were 78.33 per cent cited low prices to the produce, followed by non availability of labour (75.00%), high cost of cultivation practices (66.67%) and pest management problem (60.00%). Fifty per cent of farmers had constraints of nursery management practices. While, less than fifty per cent of farmers had constraints of lack of irrigation water (41.67%), high wages of labours (33.33%) and disease management problem (23.33%). The probable reasons for majority of the farmers expressed the low price to the product might be the large number of farmers grown redgram at a time due to more production of redgram in market leads to lesser price, there is no scientific rate, supporting price is too low and lack of storage facility

Table 1 : Constraints faced by the demonstration farmers in adoption of transplanting method of redgram cultivation (n=60)

Sr. No.	Constraints	Demonstration farmers	
		F	%
1.	Non availability of labours	45	75.00
2.	High wages of labours	20	33.33
3.	Lack of irrigation water	25	41.67
4.	Nursery management problem.	30	50.00
5.	Pest management problem	36	60.00
6.	Disease management problem	14	23.33
7.	High cost of cultivation practices	40	66.67
8.	Low price to the product	47	78.33
F-Frequency		% -Percentage	

leads to glut in the market. High cost of cultivation practices the reason might be the now all inputs are high cost and more cost required for nursery preparation, transplanting and plant protection measures. Non-availability of labour the reason could be due to migration of labours to nearby industrial cities and most of the young generation gets engaged in non-agricultural operations. High wages of labours is related directly to the non-availability of labours as the shortage of any goods escalates its cost. The reason attributed for lack of knowledge could be the less contact with the department, subject matter specialist, scientist, private agency and less exposure to mass media.

From the Table 2 it is clear that, in case of non-demonstration farmers majority of farmers expressed problems like high cost of cultivation practices (81.67%), lack of irrigation water (73.33%) and non-availability of labours. While, 60.00, 53.33 and 51.67 per cent farmers had constraints of lack of awareness, low price to the product and lack of knowledge, respectively. And fifty and 38.33 per cent of farmers expressed pest and disease management problem, respectively. Lack of irrigation water the reason might be due to low rainfall and scarcity of irrigation sources in that area. Nursery management

Table 2 : Constraints faced by the non-demonstration farmers in adoption of transplanting method of redgram cultivation (n=60)

Sr. No.	Constraints	Non-demonstration farmers	
		F	%
1.	Lack of awareness	36	60.00
2.	Lack of knowledge	31	51.67
3.	Non availability of labours	38	63.33
4.	Lack of irrigation water	44	73.33
5.	Pest management problem	30	50.00
6.	Disease management problem	23	38.33
7.	High cost of cultivation practices	49	81.67
8.	Low price to the product	32	53.33
F-Frequency		% -Percentage	

problem could be due to lack of skilled labours for preparation of seedling and lack of management skill. Majority of the respondents expressed pod borer and wilt disease were a serious problems once those occurs it is difficult to control resulting in heavy loss of yield.

Mutkule *et al.* (2001) also conducted a study on constraints in adopting chilli technology.

Conclusion:

The study indicated that, low prices to the produce, non availability of labour, high cost of cultivation practices and pest attack were the major problems faced by the demonstration farmers during transplanting method of redgram cultivation. Hence, there is need to educate the farmers on various marketing services available and also on use of pesticides for management of pests through training and use of mass media. So that farmers can be profited by cultivation of transplanting method of redgram cultivation.

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