

RESEARCH ARTICLE :

Technological gap in red gram cultivation

■ H.K. RAJPUT, A.N. DESHMUKH, S.U. MOKHALE AND J.R. SALI

ARTICLE CHRONICLE :

Received :

23.05.2016;

Revised :

29.06.2016;

Accepted :

10.07.2016

SUMMARY : The present study on technological gap in red gram cultivation was conducted in the year 2015–16 in Amravati district. For this study 80 red gram growers were randomly selected from one tehsil of district with the help of random sampling method. The data were collected with the help of structured interview schedule. Collected data were carefully examined, classified, quantified and tabulated. Frequencies, mean, standard deviation, correlation of co-efficient analysis were employed for interpreting the results. Findings revealed that Maximum per centages of the respondents 47.50 per cent were found in the group of middle aged *i.e.* 36 to 50 years. Maximum per centages of the respondents (36.25 %) were educated high school level. The majority *i.e.* (53.75 %) of the respondents regarding experience in red gram cultivation was found in the category of low experience *i.e.* upto 18 years in red gram cultivation. The majority (33.75 %) of the respondents had land large size of land holding in semi medium 2.01 to 4 ha category. The majority (45.00 %) of the respondents had area under red gram were found in small area category *i.e.* up to 2 ha. The majority (63.75 %) of the respondents had no source of irrigation. The majority (55.00 %) of the respondents had their annual income ranging 2 lacks and above, 16.25 per cent had an annual income between 50,001 to 1,00,000. More than half of the respondents *i.e.* 56.25 per cent used high level of source of information channel while, 42.50 per cent and 1.25 per cent were used medium and low level of sources of information of communication channel, respectively. The majority (67.50 %) of the respondents were found in the category of medium level of knowledge. The majority (80.00 %) of the respondents were found in the category of medium level of adoption. It was found that more than three fourth *i.e.* 80 per cent of the red gram growers belonged to medium category of technological gap. It was observed that very high technological gap was observed regarding use of FYM, hybrid varieties, seed rate, seed treatment, irrigation, use of herbicide plant protection measures and post harvest technology in red gram. In the study it was found that the education, irrigation, sources of information, knowledge and adoption were negatively significant with technological gap at 1 per cent level of significance. Whereas, experience in red gram cultivation and land holding were negatively significant at 5 per cent level of significance. While age, area under red gram and annual income were non-significantly related with technological gap. The highly perceived constraints in technological gap of cultivation of improved recommended practices of red gram which were faced by the farmers were shortage of water, non-availability of labour in time, inadequate source of finance, high cost of improved variety seed, fertilizer, FYM and herbicides, high labour charges, non-availability of storage facility, high charge and non-availability of storehouse, fluctuation price of red gram in market, irregular demand of red gram, non remunerative price during time of glut in market and high transport cost.

KEY WORDS :

Technological gap,
Red gram, Practices

Author for correspondence :

A.N. DESHMUKH

Department of Extension
Education, Shri Shivaji
Agriculture College,
AMRAVATI (M.S.) INDIA

See end of the article for
authors' affiliations

How to cite this article : Rajput, H.K., Deshmukh, A.N., Mokhale, S.U. and Sali, J.R. (2016). Technological gap in red gram cultivation. *Agric. Update*, 11(3): 255-257, DOI : 10.15740/HAS/AU/11.3/255-257.

BACKGROUND AND OBJECTIVES

Red gram is an important pulse crop in India. It is also known as Pigeonpea, Arhar and Tur. It is rich in iron, iodine and essential amino acid like lysine, cystine and arginine. It is used as ration for cattle. Straw and green leaves are used as feed for livestock. Stick of pigeonpea is used for various purposes such as thatch, basket making etc. and fuel. Legumes also fix atmospheric nitrogen in the soil.

Red gram is protein rich staple food. It contains about 22 per cent protein which is almost three times that of cereals. Red gram supplies a major share of protein requirement of vegetarian population of country. Red gram is mainly consumed in the form of split pulse as Dal, which is essential supplement of cereal based diet.

In addition to being an important source of human food and animal feed, red gram also play an important role in sustaining soil fertility by improving physical properties of soil and fixing atmospheric nitrogen. Being a drought resistance crop, it is suitable for dryland farming and predominantly used as an intercrop with other crops

The specific objectives :

- To study the profile of red gram growers.
- To study the knowledge level of the respondents about red gram cultivation.
- To find out the technological gap in recommended and actually adopted red gram cultivation technologies by the red gram growers.
- To study the relationship between profile and situational attributes of the red gram growers and technological gap in red gram cultivation.
- To obtain constraints faced and suggestion made by the red gram growers in promoting the red gram cultivation.

RESOURCES AND METHODS

The study was conducted in Amravati district of Maharashtra during 2015-16. The study was conducted randomly in Amravati district of Maharashtra state. In Amravati district there are fourteen blocks out of these one block *i.e.* Amravati was selected on the basis of maximum productivity on one hand and the researcher acquainted with the sample area on the other hand. The list of red gram growing villages was obtained from Taluka Agriculture Office. From the list, 8 villages were selected by random sampling procedure. A list of red

gram growers was prepared from each village with the help of Agriculture assistant and Talathi, and then 10 farmers from each village were selected randomly on the basis of area under red gram crop. Thus, a total of 80 respondents were selected as a sample for the study. Profile of respondents like age, education, experience in red gram cultivation, size of land holding, area under red gram, irrigation, annual income, source of information, knowledge level and adoption were considered in this study. The simple statistical mean, standard deviation and correlation were used to identify relation between technological gap and profile of respondents.

OBSERVATIONS AND ANALYSIS

The findings of the study as well as relevant discussion have been summarized under the following heads:

Relation analysis:

In order to find out the relationship of the selected characteristics of respondents with their technological gap, correlation co-efficient was worked out. The findings are presented in Table 1.

The foregoing analysis indicated that, education, irrigation, source of information; knowledge level and adoption were negatively but significantly correlated with technological gap at 0.01 level of probability (Table 1). Experience in red gram cultivation, and size of land holding were negatively but significantly correlated with technological gap at 0.05 level of probability. There existed relationship between education, irrigation, source of information, knowledge level, adoption, experience in

Table 1 : Correlation co-efficient between independent characteristics and overall technological gap in red gram cultivation

Sr. No.	Independent variable	Correlation co-efficient
1.	Age	0.0866 ^{NS}
2.	Education	-0.2984 **
3.	Experience in red gram cultivation	-0.2419 *
4.	Size of land holding	-0.2247 *
5.	Area under red gram	-0.0432 ^{NS}
6.	Irrigation	-0.2950 **
7.	Annual income	-0.1256 ^{NS}
8.	Source of information	-0.4077 **
9.	Knowledge level	-0.3412 **
10.	Adoption	-1.0000 **

* and ** indicate significance of value at P=0.05 and 0.01, respectively
NS= Non-significant

red gram cultivation and size of land holding with technological gap.

The variables age, area under red gram and annual income did not show any significant relationship with technological gap possessed by respondents. There existed no relationship between age, area under red gram and annual income with technological gap.

The finding of present study is in accordance with the findings reported by Tayde (2010). Almost similar studies were made by many workers (Ahire *et al.*, 2015; Jadhav and Aski, 2014; Shashikant *et al.*, 2014; Singh *et al.*, 2007 and Tembhurne, 2015).

Conclusion:

Findings revealed that maximum percentages of the respondents were of middle age group, educated upto high school level. The majority of the respondents regarding experience in red gram cultivation were found in the category of low experience in red gram cultivation, majority of the respondents had large size of land holding in semi medium category, majority of the respondents put area under red gram were found in small area category. The majority red gram growers had no source of irrigation, majority of the respondent had their annual income ranging 2 lacks and above, more than half of the respondent used high level of source of information channel. The majority of the respondents were found in the category of medium level of knowledge, majority of red gram growers were

found in the category of medium level of adoption.

Authors' affiliations :

H.K. RAJPUT, S.U. MOKHALE AND J.R. SALI, Department of Extension Education, Shri Shivaji Agriculture College, AMRAVATI (M.S.) INDIA

REFERENCES

- Ahire, R.D.**, Karhale, R.S. and Kadam, R.P. (2015). Technological gap in pigeonpea production technology in Marathwada region. *Agric. Update*, **10** (4) : 355-357.
- Jadhav, K.** and Aski, S.G. (2014). Extend of adoption of red gram production technologies by the trained and untrained farmers. *Internat. J. Plant Sci.*, **9** (2) : 431-434.
- Shashikant, V.G.**, Dubey, L.R., Gouda, Ganesha and Patil, I. (2014). Technological gaps in red gram production in Gulbarga district of Karnataka. *Agric. Sci. Digest.*, **34** (1):45 – 48.
- Singh, S.N.**, Singh, V.K., Singh, R.K. and Singh, Rakesh K. (2007). Adoption constraints of pigeonpea cultivation in Lucknow district of Central Uttar Pradesh. *Indian Res. J. Ext. Edu.*, **7** (1): 34-35.
- Tayde, R.V.** (2010). Technological gap in cotton cultivation technology. M.Sc. (Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmednagar, M.S. (INDIA).
- Tembhurne, R.D.** (2015). Technological gap in adoption of integrated pest management practices of pigeonpea by the farmers. M.Sc. (Ag.) Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, M.S. (INDIA).

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