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Short Communication

Adoption of gram production technology by the farmers in Diara land of Bihar

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ABSTRACT

The Diara ecosystem known as the future grain bank of the country can meet the challenge of food security of the nation. It is spread over large area of UP, Bihar and the state of West Bengal. The present study was carried out in Mokama block of Patna district which is commonly known as Green Bowl of Bihar with the objective to study the adoption behaviour of gram producers. The results revealed that majority of gram growers had medium level of knowledge followed by high and low level of knowledge towards gram production technology in Diara land of Bihar. The level of knowledge related with gram growers across different components of gram production technology was highest in the area of land preparation followed by different varieties of gram and seed treatment. The extent of adoption of gram producers across different components of gram production technology was highest in the area of use of high yielding variety of gram (80.00%) followed by use of recommended seed rate and treatment of seed with fungicides (67.00%).

Keywords: Knowledge; adoption; gram production technology; Diara land

INTRODUCTION

The Diara ecosystem whose potentials are yet to be exploited is situated between the natural levees of rivers and is periodically eroded and formed due to meandering, braiding and course changing of rivers and remains inundated under flood water for varied periods of time. It features a riverine landscape with unstable land surfaces, subjected annually to erosion and redisposition with assortment of sediments depending upon the velocity and duration of floods. The Diara ecosystem is identified as future grain bank of the country and is spread over large area of eastern UP, Bihar and West Bengal and has the paramount importance in food production specially pulses. The area under this system has been estimated as 11.76 lakh ha in Bihar under different river basins out of which Ganga Diara is most extensive covering about 5.33 lakh ha of area. The topography of Diara forms a confused pattern of up, mid and low land depending upon the period of stay of flood water that makes agricultural

operations more crucial and challenging. The area has vast potential for enhancing the pulse and vegetable production. The farmers residing in this area cultivate different crops in their Diara land on migratory basis and the large area is covered under gram and lentil crops which require low inputs and meagre management due to risk and uncertainty. Keeping in view these facts the present study was aimed at identifying the extent of adoption of gram production technology by the farmers in Ganga Diara land of Bihar

METHODOLOGY

The study was carried out in Mokama block of Patna district of Bihar purposely as it is situated on the southern bank of Ganga. The land strip along the north of Ganga is called Diara which submerges in Ganga during monsoon. On the south of Mokama is the Tal region which also gets the backwaters of the Ganga during monsoon. For the purpose of the study a list of progressive farmers with respect to gram producers of different villages of Mokama block was prepared first hand with the help of block agricultural officers, KVK scientists, subject matter specialists and extension officials working in the area. Out of this list total one hundred (100) gram producers who were involved in gram cultivation on regular basis were selected as the sample of the study was based on proportionate probability principle. The data were collected with the help of structured personal interview method wrt knowledge and adoption level of gram growers which were tabulated and analyzed for meaningful results.

RESULTS and DISCUSSION

Knowledge level of gram growers

The perusal of Table 1 shows that maximum of (52.00%) respondents had medium level of knowledge towards gram production technology followed by 19.00 per cent who had high level of knowledge. The 15.00 per cent of the respondents had low and 14.00 per cent had very low level of knowledge. Therefore there was much scope to help and guide the gram producers through suitable extension efforts to enhance their knowledge across different components of gram production technology.

Extent of adoption of gram production technology

The results given in Table 2 indicate that extent of adoption of farmers about different components of gram production technology was highest in area of use of high yielding variety of gram (72.00%) followed by use of recommended seed rate (59.00%), treatment of seed with fungicides (54.00%), use of plant protection measures (51.00%), preventive measures against weed species (49.00%), use of fertilizers adequately and timely (37.00%), water management (27.00%) and method of sowing (22.00%).

Table 1. Knowledge level of respondents about gram production technology

Knowledge level (%)	Respondents (%)
Low (0-25)	15.00
Medium (25-50)	52.00
High (50-75)	19.00
Very high (75-100)	14.00

Table 2. Extent of adoption of the gram production technology by the respondents

Component	%	Rank
Use of high yielding variety of gram seed	72.00	I
Use of recommended seed rate	59.00	II
Treatment of seed with fungicide	54.00	III
Use of plant protection measures	51.00	IV
Preventive measures adopted against weed	49.00	V
Use of fertilizers adequately and timely	37.00	VI
Water management	27.00	VII
Method of sowing	22.00	VIII

This shows that the extent of adoption of gram production technology among the gram producers was moderate and medium. The growers preferred traditional varieties over new varieties; they had been following the old broadcasting method of sowing. It is necessary that the farmers be trained in the fields in which their response was poor.

Table 3. Level of adoption of gram production technology by the selected gram producers

Level of Adoption (%)	%
Low (0-25)	12.00
Medium (25-50)	52.00
High (50-75)	25.00

Level of adoption of gram production technology

The study was also done on the adoption level of gram growers in the area and the data are given in Table 3. The data reveal that a maximum (52.00%) of the respondents had medium, 25.00 per cent had high while 11 per cent had very high level of adoption. Similar observations were also made by Rombade et al (2011) in which they observed that majority of respondents (44.16%) adopted and advocated Kagzilime cultivation practices to a medium extent. Similar observations were also made by Burman et al (2010), Choudhary and Singh (2000) and Wadhwani and Singh (2007).

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