Relationship of Profile Charecteristics of Blackgram Growers With Their Level of Knowledge

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ABSTRACT

The present study was conducted in Guntur district of Andhra Pradesh during 2015-16 "A Study on the Knowledge and Extent of Adoption of the Farmers on Recommended Rice Fallow Blackgram Production Technology in Guntur District of Andhra Pradesh". A total of 120 respondents constituted the sample of the present study. The findings revealed that majotity (65.00%) of the blackgram growers had medium knowledge level followed by those with high (19.16%) and low (15.83%) about recommended rice fallow blackgram production technology. The level of knowledge of rice fallow blackgram farmers was positively and significantly influenced by the profile charecterstics like Extension contact, Social participation, mass media exposure, economic motivation, innovativeness, scientific orientation, Risk orientation, market orientation and annual income. Social participation, economic motivation, scientific orientation and market orientation were significant with level of knowledge in multiple linear regression analysis.

Keywords: *knowledge, rice fallow blackgram.*

Black gram is scientifically known as *Phasiolus mungo* and it is commonly known as Urad in India. India is its primary origin and is mainly cultivated in Asian countries including Pakistan, Myanmar and parts of Southern Asia. About 70% of world's black gram production comes from India. In India, Blackgram is grown in 31 lakh hectares with production of 14 lakh tonnes with productivity of 451 Kg per hectare. In Andhra Pradesh, black gram is grown in an area of 3,70,000 hectares with a production of 3,09,000 tonnes. Thus, there is need to increase production and productivity of pulses in the country by more intervensions.

Keeping in view the above facts and importance of the rice fallow blackgram crop, level of knowledge of rice fallow blackgram farmers was assessed during the present study in Guntur district of Andhra Pradesh.

MATERIAL AND METHODS

The study was carried out using ex post facto research design during 2015-16 in the Guntur district of Andhra pradesh. A combination of purposive and random sampling procedure was employed. Guntur district was selected purposively

as there is a scope for increasing the area, production and productivity of Rice fallow Blackgram in view of its first position in productivity and second position in both area and production in Andhra Pradesh through effective strategies.

Three mandals Nagaram, Ponnuru, and Amruthaluru were selected purposively based on highest area in the district. From each mandal, four villages were selected randomly and from each village, based on the number of rice fallow blackgram farmers in the village, rice fallow blackgram farmers were selected by proportionate random sampling thus, to make a total sample size of 120. The data was collected using a well structured interview schedule.

RESULTS AND DISCUSSION

1.   Level of knowledge of recommended rice fallow blackgram production technology:
The distribution of blackgram growers based on their level of knowledge about rice fallow blackgram production technology was presented in Table.1. Most of the farmers (65.00%) had medium knoeledge level, 19.16 per cent and 15.83 per cent

of the farmers had high and low level of knowledge about recommended rice fallow blackgram production technology. The possible reason for medium to high level of knowledge on recommended rice fallow blackgram production technology might be due to their habitual inclination to set pattern of blackgram cultivation over the years using indigenous varieties without any change, small and medium holdings, medium innovativeness, scientific orientation, economic orientation, market orientation, medium mass media exposure and extension contact. These findings were in conformity with those reported by Chapke (2000), Mehta *et al.*(2001), Gopinath (2005), Gopiram (2005), Raghavendra (2004) and Sriramana (2014).

2. Relationship of profile characteristics of rice fallow blackgram farmers with their level of knowledge :

1. Age Vs Level of Knowledge

From Table 2, it is evident that there was positive and non-significant relationship between age and level of knowledge of blackgram growers. From this, it could be inferred that as the age increases, knowledge also increases but non-significantly. This might be due to the experience gained by the old and middle age people over the years, and at the same time they could not acquire significant knowledge due to their low level of education and decreasing recalling ability. The above findings are in line with the findings of Meena (2009), Naik *et al.* (2009), Saha *et al.* (20010) and Kumar (2012) and Sriramana (2014).

2. Education Vs Level of Knowledge

It is evident from the Table 2 that there was a positive and non significant relationship between education and level of knowledge of blackgram growers. From this, it is evident that as the education increases, level of knowledge of blackgram growers also increases but insignificantly. This might be due to the fact that majority of growers were small and medium farmers and could not go for higher education due to financial problems, non availability of higher education in rural areas and lack of awareness about education. So, these restricted them to have better access to farm information sources such as farm magazines, farm bulletins, books on agriculture *etc*. and possess better capacity to grasp things and analyze and interpret them in proper ways. Further, this resulted

in having no exposure to extension agencies, scientists, and research stations *etc*. which also contribute to knowledge. This finding is in conformity with the findings of Naik *et al*. (2009) and Saha *et al*. (2010).

3. Farm Size Vs Level of Knowledge

It was evident from the Table 2 that there was positive and non-significant relationship between land holding and level of knowledge of blackgram growers. It implied that as the farm holding increases, there is an increase in level of knowledge but non-significantly. This might be due to the fact that the knowledge is the cognitive character, which did not effected by the farm holding. Further, majority of blackgram growers were leasing their lands instead of cultivating themselves. Moreover, the blackgram growers maintaining the farms with similar management techniques irrespective of the land holding.Similar findings were reported by Naik *et al*. (2009) and Ambedkar (2010), Kumar (2012) and Sriramana (2014).

4. Farming Experience Vs Level of Knowledge

From the Table 2 it was quite interesting to note that the farming experience of blackgram growers did not show any significant relationship with their level of knowledge on selected production technology of blackgram. From this, it was clear that as the farming experience increases, level of knowledge on selected production technology increases.

This might be due to the most of the blackgram growers knowledge being experimented because of their inclination to age old traditional practices in blackgram cultivation which are also old. This finding is in accordance with the findings of Gayathri *et al.* (2002) and Sriramana (2014).

5. Extension Contact Vs Level of Knowledge

The data presented Table 2 clearly revealed that there was positive and highly significant relationship between extension contact of blackgram growers and their level of knowledge. This clearly implies that the level of knowledge increases with the increase in extension contact. Extension agencies were considered as best and reliable source of information for the farmers. Extension contact enables the farmer to different kinds of information, inturn enlarge their sphere of

knowledge about recent production technology of blackgram. Hence, the above relationship was noticed. This calls for extended efforts of extension agencies. Similar findings were reported by Singh (2003), Arya *et al*.(2003), Janardhan (2004), Gopinath (2005), Ambedkar (2010) and Sriramana (2014).

6. Social Participation Vs Level of Knowledge

It is clear from Table 2 that social participation showed positively and high significant relationship with the level of knowledge of blackgram growers. From this, it could be inferred that Social Participation is having highly significant influence on level of knowledge on recommended package of practices. This infers that who actively participates in social activities through social organizations come across different types of people, exchange one's views and experiences, discuss about problems and solutions and there by gain more and more knowledge.This finding is in conformity with the findings of by Gowda *et al*. (2002), Kumar (2002), Reddy *et al*. (2007), Shakya *et al.* (20008) and Ambedkar (2010).

7. Mass media exposure Vs Level of Knowledge

Contents of Table 2 revealed that there was a positive and highly significant relationship between mass media exposure and level of knowledge of blackgram growers. It can be inferred that as the mass media exposure of blackgram growers increases, their knowledge would also increase. This might be due to the reason that mass media exposure gives more information. Now a days, farmers who keep in touch with mass media like radio, television, information materials, farm journals were considered to be the accelerators of diffusion of agricultural innovations and helps others to improve the level of knowledge on blackgram production technologies. It is quite natural that wherever and whenever a person is exposed to media more frequently, they are entitled to get more information.This finding i in agreement with the findings of Gayathri *et al*. (2002), Gowda *et al*. (2002), Kumar (2002), Prasad (2002), Singh *et al*.(2003), Arya *et al*. (2003), Gopinath (2005), Ambedkar (2010) and Sriramana (2014).

8. Economic Motivation Vs Level of Knowledge

Table 2 explains that there was a positive and high significant relationship between the economic motivation and level of knowledge of blackgram growers. It could be inferred that, farmers who possessed more economic motivation had more knowledge than their counter parts. These farmers want to get maximum yields and to improve their income level, they have to know about latest agricultural practices. Thus, economic motivation among them acts as an initiating factor for acquiring knowledge about improved technologies. Hence this type of trend was noticed.This finding is in conformity with Gopinath (2005), Tripathi *et al*. (2006), Reddy *et al*. (2007), Roy *et al*. (2007), Naik *et al*. (2009), Sharma *et al*. (2009), Ambedkar (2010) and Kumar (2012).

9. Innovativeness Vs Level of Knowledge

It is clear from Table 2 that there was a positive and highly significant relationship between innovativeness and level of knowledge of blackgram growers. This means that the higher the innovativeness of the farmer, the more would be the level of knowledge. This trend might be due to the fact that farmers with high innovativeness desire to seek changes in farming techniques and introduce changes in his own operation. This desire make him to acquire innovations directly from scientists in terms of knowledge about recommended practices.The above finding is in line with the findings of Gopinath (2005), Rathod (2005), Reddy *et al*. (2007), Naik *et al*. (2009), Ambedkar (2010), Kumar (2012) and Sriramana (2014).

10. Scientific Orientation Vs Level of Knowledge

A cursory observation of Table 2 revealed that there was a positive and high significant relationship between scientific orientation and level of knowledge of blackgram growers. Hence, it could be inferred that the higher the scientific orietation, the more will be the knowledge. The proable reason may be that blackgram growers with progressive and systematic ideas are more recptive to scientific innovations. In this process, they might have high level of knowledge about selected production technology of blackgram.This finding is in agreement with the findings of Nagaraj *et al*. (2000), Gowda *et al*. (2002), Kumar (2002), Janardhan (2004), Gopinath (2005), Shakya *et al*. (2008) and Ambedkar (2010).

11. Risk Orientation Vs Level of Knowledge

An examination of Table 2 points out that there was a positive and highly significant

relationship between risk orientation and level of knowledge of blackgram growers. This shows that as the risk orientation increases, level of knowledge also increases. Risk orientation is expressed as the degree to which a farmer is oriented to take risk and to face uncertainties in blackgram cultivation. The risk taking individuals would go out all the way to get the information from different sources in order to acquire more knowledge. Hence, efforts need to be made to increase the risk bearing ability of farmers through credit facility and support price. This finding similarly reported by Gopinath (2005), Tripathi *et al*. (2006), Meena *et al*. (2009), Sharma *et al*. (2009), Ambedkar (2010), Kumar *et al*. (2013) and Sriramana (2014).

12. Market Orientation Vs Level of Knowledge

Results furnished in the Table 2 showed that market orientation had positive and highly significant relationship with level of knowledge of blackgram growers. The more the market orientation, more will be the level of knowledge. Because, blackgram growers who pay attention to market information on prices in order to get high income, they also try to improve their knowledge on blackgram production technology which helps in getting good yields. This is in conformity with the findings of Bandopadhay (1997),Kumar (2002), Raju and Murthy (2002), Gopinath (2005), Patel and Chauhan (2009) and Sriramana (2014).

13. Annual Income Vs Level of Knowledge

It is clear from Table 2 that the annual income of the blackgram growers showed positive and high significant relationship with their level of knowledge This indicated that as the annual income increased, the extent of knowledge on recommended practices also increased. This inferred that, the respondents with higher level of annual income,the extent of knowledge of recommended practices to a greater extent. The above similar finding is reported by Kharde and Nimbalkar (1996), Deshmukh (1997), Hanumanaikar (1997), Patil *et al*. (1999), Veeraiah *et al*. (2005) and Rao (2011).

14. Training Received Vs Level of Knowledge

A cursory examination of Table 2. indicated that there was a positive and non- significant relationship between training received and extent of knowledge of blackgram growers.

This showed that majority of the growers were not undergone any training programmes related to package of practices. Undergoing training programmes will enable the farmers to know the new technology and knowledge levels may increased. So there is a need to conduct training programmes to blackgram growers to increase their production. The above finding is in consonance with the findings of Arthy (2011) and Thiyagarajan (2011).

Multiple linear regression analysis of profile characteristics with level of knowledge of blackgram growers:

Table.3 reveals the results of regression analysis between profile characteristics and level of knowledge. The multiple regression analysis was performed to find out the extent of contribution of each charecterstic to level of knowledge. The profile charecterstics i.e. social participation, economic motivation, scientific orientation and market orientation were found to be positively significant at 5% level of ssignificance. The R^2 value of 0.866 indicated that all the selected 14 independent variables put together, explained about 86.60 per cent variation in the knowledge level of rice fallow blackgram farmers.

CONCLUSION

The findings revealed that majority (65.00%) of the rice fallow blackgram growers (65.00%) had medium level of knowledge followed by those with high (19.16%) and low (15.83%) level of knowledge about recommended rice fallow blackgram production technology. The level of knowledge of rice fallow blackgram farmers was positively and significantly influenced by the extension contact, social participation, mass media exposure, economic motivation, innovativeness, scientific orientation, risk orientation, market orientation and annual income. Social participation, economic motivation, scientific orientation and market orientation were significant with level of knowledge in multiple linear regression analysis.

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Table.1. Distribution of blackgram growers according to their level of knowledge   (n=120)

S.No	Category	Blackgram growers Frequency	Percentage
1.	Low (<39.93)	19	15.83
2.	Medium (39.93-53.94)	78	65.00
3.	High (>53.94)	23	19.16
	Total	120	100.00

Mean= 46.94   S.D.=7.00

Table.2. Correlation coefficient of profile characteristics of blackgram growers with their level of knowledge. (n=120)

S.No.	Profile Characteristics	'r' value
1.	Age	0.094NS
2.	Education	0.006NS
3.	Farm Size	0.147NS
4.	Farming Experience	0.010NS
5.	Extension Contact	0.304**
6.	Social Participation	0.331**
7.	Mass Media Exposure	0.706**
8.	Economic Motivation	0.843**
9.	Innovativeness	0.781**
10.	Scientific Orientation	0.846**
11.	Risk Orientation	0.810**
12.	Market Oreintation	0.752**
13.	Annual Income	0.455**
14.	Training Received	0.024NS

NS = Non significant   ** Significant at 0.01 level of probability
                                  * Significant at 0.05 level of probability

Table.3. Multiple linear regression analysis of profile characteristics of blackgram growers with their level of knowledge (n= 120)

S.No	Profile Characteristics	Regression coefficient	Standard error	't' Value
1.	Age	-0.013	0.363	-0.037 NS
2.	Education	-0.189	0.183	-1.036 NS
3.	Farm Size	0.123	0.264	0.465 NS
4.	Farming Experience	0.232	0.183	1.265 NS
5.	Extension Contact	0.089	0.111	0.794 NS
6.	Social Participation	0.463	0.198	2.334*
7.	Mass Media Exposure	0.297	0.167	1.782 NS
8.	Economic Motivation	0.470	0.083	5.671*
9.	Innovativeness	0.254	0.169	1.505 NS
10.	Scientific Orientation	0.244	0.074	3.281*
11.	Risk Orientation	0.170	0.207	0.822 NS
12.	Market Oreintation	0.291	0.144	2.029*
13.	Annual Income	0.285	0.208	1.372 NS
14.	Training Received	-0.132	0.313	-0.422

a = 21.087 $R^2 = 0.866$
NS = Non-Significant   * Significant at 0.05 level of probability
                            ** Significant at 0.01 level of probability

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