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Knowledge and adoption level of pea growers in Varanasi district (Uttar Pradesh)

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Abstract

The study was conducted purposively in Pindra block of Varanasi district due to maximum area under pea cultivation. A list of the villages of the selected block was prepared and 9 villages were selected with the help of simple random sampling method for the study. After the selection of the villages, a village wise list of the pea growing farmers was prepared and different number of farmers from each village was selected randomly. Thus the total sample was comprises of 120 farmers. The basic objective of the study was to ascertain the knowledge possessed and adoption level of growers as well as the social status of pea growers. The result revealed that 61.66 per cent of the respondents had medium level of knowledge, 81.67 per cent of respondents belonged to medium adoption category.

Keywords- ascertain, adoption, sampling, category

Introduction

Field pea (*Pisum sativum* L.) is one self-pollinated diploid (2n=14) annual of the most important annual cool season pulse crop and is valued as high protein food. It is widely grown in the cooler temperate zones and in the highlands of tropical regions of the world. The crop is cultivated in a wide range of soil types from light sandy loams to heavy clays but it does not tolerate to saline and waterlogged soil condition .The soil pH optimum for it is 5.5-6.5. Field pea is one of the most important pulse crops in Ethiopia which is produced for a long time in high- and mid-altitude areas by small farmers. Agriculture has always occupied a prime place in Indian economy. Out of 2.4 per cent of world's land, India is managing 17.5 per cent of world's population. At the time of

independence, more than half of the national income was contributed by agriculture along with more than 70 per cent of total population depending on agriculture (Pandey, 2013). Now the scenario has changed and rural population is migrating towards urban areas for the purpose of employment (NSS 64th Round, 2007-08) and the proportion of rural population has declined from 72.19 % in 2001 to 68.84 % in 2011 (Census of India, 2011).The great significance of agriculture in the country's economy is well understood by the fact that it is mainstay of the people. India is predominantly an agriculture country as more than 72.2 per cent of its population is living in villages and majority of them are engaged in agriculture enterprise. In 2014 around 55.96 crores populations was found engaged in agriculture which accounts for 51.76 per cent of country's total population. Among economically active population of 67.88 crores, 57.8 per cent were active in agriculture (Data Book, ICAR, 2016). The present investigation is an effort to identify the gap in the recommended practices of pea production technology. The study was designed to conceptualize the behavior of pea growers in term of the socio-personal-economic, communicational and psychological factors with reference to their adoption behavior. The findings of the study are expected to be useful in indentifying farm entrepreneurs to improve them in development activities related to agriculture. It is believed that the findings will be very useful in developing suitable training programmes related to agriculture development and also in changing existing in to the better ones.

Materials and method

The state of Uttar Pradesh was selected purposively as the researcher belongs to this state and is familiar with the local language which would help in building up better rapport with the respondent farmers.The study was conducted purposively in Pindra block of Varanasi district due to maximum area under pea cultivation. A list of the villages of the selected block was prepared and 9 villages were selected with the help of simple random sampling method for the study. After the selection of the villages, a village wise list of the pea growing farmers was prepared and different number of farmers from each village was selected randomly. Thus the total sample was comprises of 120 farmers. The adoption behavior about pea production technology refers to the extent of adoption of recommended improved farm practices. The questions regarding improved varieties, seed rate, seed treatment, sowing time & methods, recommended dose of chemical fertilizers, and plant protection etc. were selected. The weightage of 3 for complete adoption, 2 for partial adoption and 1 for no adoption of each practice was assigned. The respondents were classified into low, medium and high on the basis of mean ± S.D.

Sr. No.	Category	Score
1.	Low	Below (Mean – SD)
2.	Medium	(Mean – SD) to (Mean + SD)
3.	High	Above (Mean + SD)

Analysis and interpretation of collected data from the sample of 120 Pea growers with reference to pea production technology through the pre-tested structured interview schedule. Calculation was made on frequency, percentage basis; mean and standard deviation was also applied.

Results and discussion

3.1 Distribution of respondents according to their age

It is observed from table 3.1 that the majority of the respondents 53.33 per cent were belonged to middle age group 34 to 46 year, 25 per cent respondents were under old age group (above 46 year) and 21.67 per cent respondents were of young age grouping (below 34).

Table: 3.1 Distribution of respondents according to age (n=120)

Sr. no.	Categories	No. of respondents	Percentage
1.	Young age (below 34)	26	21.67
2.	Middle age (34 to 46)	64	53.33
3.	Old age (above 46)	64	25.00

The results of present study show that higher percentage of pea growers 53.33 per cent belong to middle age group (34 to 46 years). The finding finds supports with the work of Patel (2004).

3.2. Distribution of respondents according to education

It is evident from table 3.2 that the maximum respondents 40 per cent had High School, followed by 20 per cent respondents have Primary educated, 15 per cent were illiterate,11.67 per cent were Graduate,7.5 per cent have education up to middle school and 5.83 per cent possessed Post Graduate education.

Table: 3.2 Distribution of respondents according to education. (n=120)

Sr. No	Categories	No of Respondents	Percentage
1.	Illiterate	18	15
2.	Primary	24	20
3.	Middle School	09	7.5
4.	Higher Secondary	48	40
5.	Graduate	14	11.67
6.	Post Graduate	07	5.83

The above findings concluded that higher percentage of growers 40 per cent was found to be educated up to Higher Secondary level. This finding supports with the work of Sharma *et. al*. (2014).

3.3. Distribution of respondents according to caste

As regarded to caste, maximum numbers of the respondents 70 per cent belong to other backward caste followed by 20 per cent were under General, 10 per cent respondents were from SC caste and 00 per cent respondents belonged to ST. It can be concluded that majority of the respondents were belonged to OBC.

Table: 3.3 Distribution of respondents according to caste. (n=120)

Sr. No.	Categories	No. of Respondents	Percentage
1.	General	24	20
2.	OBC	84	70
3.	SC	12	10
4.	ST	00	00

The finding regarding caste indicated that higher percentage 70 of growers belongs to other backward class. The finding finds supports with the work of Sharma *et al*. (2014).

3.4 Distribution of respondents according to Annual income

The data presented in table 3.4 reveals that out of 120 pea growers, 40 per cent belonged to low annual income, 35 per cent belonged to medium annual income and 25 per cent belonged to high annual income. Thus, it can be stated that the maximum pea growers 48 per cent were found in low annual income.

Table 3.4 Distribution of respondents according to Annual income (n=120)

Sr. No.	Categories	No. of Respondents	Percentage
1.	Low (<Rs50000)	48	40
2.	Medium(Rs50000 to 70000)	42	35
3.	High(>Rs70000)	30	25

Majority of the respondents (40 per cent) belonged to low annual income category. This might be due to that the respondents had limited source of income. They all were engaged in farming activities and some other activity throughout the year and they were able to generate higher income. This finding finds supports with the work of Yadav and Mishra (2019).

3.5 Distribution of respondents according to Occupation

Data presented in Table 3.5 show the distribution of pea growers according to their occupation. The data indicated that 50 per cent age respondents were having farming as their main occupation followed by 25 per cent having farming and private job, 15 per cent having farming and other occupation and 10 per cent having farming and government job.

Table: 3.5 Distribution of respondents according to occupation. (n=120)

Sr. No.	Categories	No. of Respondents	Percentage
1.	Farming	60	50
2.	Farming + govt. job	12	10
3.	Framing + Pvt. Job	30	25
4.	Farming + others	18	15

The higher percentage of the respondents 50 per cent had only farming as their main occupation followed by respondents 25 per cent had farming + Pvt. Job. That might be due to lack of employment facilities in the selected area. Therefore, majority of villagers were involved only in agricultural activities. This finding finds support with the work of Kumar (2000).

3.6 Distribution of respondents according to knowledge level

The data of Table 3.6 reveal that out of 120 respondents the majority i.e. 61.66 per cent were from medium level of knowledge level group, 14.17 per cent belonged to low level of knowledge group and 24.17 per cent respondents belong to high level of knowledge group.

Table 3.6. Distribution of the respondents according to Knowledge level

Sr. No.	Categories	No. of respondents	Percentage
1.	Low (below 45.68)	17	14.17
2.	Medium (45.68 to 58.56)	74	61.66
3.	High (above 58.56)	29	24.17

The study further revealed that higher percentage 61 per cent of the grower were having medium knowledge level of pea technology. The finding might be due to the reason that the growers were properly trained theoretically and were given proper attention on the important aspect of the subject matter and even feed back in term of evaluation. This finding finds support with the work of Kushwaha (2008).

1.7. Distribution of respondents according to adoption level-

The data of Table 3.7 reveal that out of 120 respondents the majority i.e.81.67 per cent respondents were from medium level of adoption group, 3.33 per cent belonged to high and 15 per cent respondents belong to low level of adoption level.

Table 3.7: Distribution of the respondents according to adoption level

Sr. No.	Categories	No. of respondents	Percentage
1.	Low (below 33.17)	18	15.00
2.	Medium (33.17 to 51.73)	98	81.67
3.	High (above 51.73)	04	03.33

The study further revealed that higher percentage of the grower were having medium adsoption level of pea technology. The finding might be due to the reason that the growers were properly trained theoretically and were given proper attention on the important aspect of the subject matter and even feed back in term of evaluation. This finding finds support with the work of Kushwaha (2008).

Conclusions

Most of respondents belonged to middle age groups. Maximum numbers of respondent had higher Secondary level school of education. Most of respondents possessed OBC category and majority of the pea growers had low of annual income.

Most of the respondents were engaged in farming .Knowledge level of pea growers was studied in regard to improved pea production technology. It was observed that majority of the mustard growers had medium level of knowledge. Adoption behaviour of mustard growers was studied in regard to adoption of improved pea production technology. It was observed that majority of the pea growers had medium adoption.

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