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Socio-economic, communication and psychological characteristics attributes of the hybrid rice growers

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Abstract

The present study was conducted in two districts of Eastern Uttar Pradesh. Two districts viz. Azamgarh and Sonbhadra from Eastern regions of Uttar Pradesh were selected purposively. Therefore, three blocks viz. Thekma, Tarwa, Tahbarpur of Azamgarh district and Chatra, Chopan, Duddhi of Sonbhadra district were selected purposively. Separate lists of villages were prepared. From them four villages from each block will be selected randomly to draw the samples of farmers, with the consideration of highest acreage under hybrid rice. Four villages from each block were selected randomly to draw the samples of farmers, with the consideration of highest acreage under hybrid rice. A separate list of farmers was prepared for each selected village and arranged according to the category of farmers i.e. marginal, small, medium, and big farmers. Therefore, a total of 360 respondents were selected through random sampling techniques, 15 farmers were selected from each village. The suitable statistical tools/techniques were used for computing the data and inferences to be drawn. The present study carried out during the year 2020-2021. Hybrid rice is considered as the master crop of coastal India as well as in several regions of the eastern India during the summer monsoon rainy season mutually high temperature and heavy rainfall offers ideal circumstances for the cultivation of hybrid rice. Most of farmers are belonged to age group (35-55 years) 49.44 per cent and majority of people belongs to general category. Majority of respondents educated, most of respondents have mixed house, majority of farmers depends on agriculture as a source of income, most of farmers having marginal farmers and their income falls under medium income. It also concluded that majority of respondents are belongs to nuclear family. It observed that 42.22 per cent of the respondents were participated as member of two organizations/office bearer followed by 37.77 per cent participated in one organization and 20.00 per cent respondents having No participation in any organization. Respondents were used cycle as means of transportation. Sent per cent members having cots and crockery in term of house hold material. It also evident from that sent per cent of the respondents having Kudal, kurpi found as source of agricultural material. Majority of respondents were used mobile phone 90.83 per cent for communication purpose.

Keywords: social participation, communication, statistical tools, sampling technique and respondents etc.

Introduction

Paddy (*Oryza sativa*) is one of the vital cereal crops of the world and forms the staple food for more than 50 per cent of population and is recognized as “king of cereals”. The United Nations General Assembly, in a resolution confirmed the year of 2004 as the “International Year of Rice”, which has tremendous significance to food security. It very eloquently upheld the need to enhance awareness about the role of rice in alleviating poverty and malnutrition. India stands first in area and second in total food production. Among the rice growing countries, India has the largest area under rice in the world (45.50 million ha) with a total production of 96.43 million tonnes during 2007-08 and it stood next only to China in the world with respect to production. Hybrid rice is considered as the master crop of coastal India as well as in several regions of the eastern India during the summer monsoon rainy season mutually high temperature and heavy rainfall offers ideal circumstances for the cultivation of hybrid rice. Approximately the entire parts of India are appropriate for raising hybrid rice during the summer season. Consequently, hybrid rice is too raised even western Uttar Pradesh, Punjab and Haryana in low level areas such as waterlogged during the summer and monsoon rainy season. Individual when he is confronted with a new situation. Rice is one such crop where is lot of scope incorporating the above said practices such as to harvest higher yields and to maintain soil productivity. Hence, in order to minimize the cost of production and maximize the productivity without affecting the environment, certain steps to be taken for rice cultivation, viz. integrated nutrient management, integrated pest management and water

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management. From the foregoing discussion, it is evident that rice command greater importance for attaining a better position in the world market in term of national income. At the same time, there is a need to concentrate on certain specific sustainable cultivation practices which are eco-friendly and cost effective. Since, the issues related to higher cost of cultivation due to increase in use of pesticides and fertilizers and other environmental issues are gaining paramount importance. Therefore conducted a study on "Socio-economic, communication and psychological characteristics attributes of the hybrid rice growers" pertaining to 2020-21.

Methodology

The present study was conducted in two districts of Eastern Uttar Pradesh. Namely district Azamgarh in Eastern Plain Zone North and Sonbhadra in Vindhyan Zone of Uttar Pradesh. Researcher is familiar with the area and culture therefore it has facilitated him to obtain factual data from the respondents. Therefore, two districts viz. Azamgarh and Sonbhadra from Eastern regions of Uttar Pradesh were selected purposively. Therefore, three blocks viz. Thekma, Tarwa, Tahbarpur of Azamgarh district and Chatra, Chopan, Duddhi of Sonbhadra district were selected purposively. From selected blocks of Azamgarh district namely Thekma, Tarwa and Tahbarour. Separate lists of villages were prepared. From them four villages from each block will be selected randomly to draw the samples of farmers, with the consideration of highest acreage under hybrid rice. Four villages from each block were selected randomly to draw the

samples of farmers, with the consideration of highest acreage under hybrid rice.

From selected blocks of Sonbhadra District namely Chatra, Chopan, Duddhi. Separate lists of villages were prepared. From them four villages from each block will be selected randomly to draw the samples of farmers, with the consideration of highest acreage under hybrid rice. Four villages from each block were selected randomly to draw the samples of farmers, with the consideration of highest acreage under hybrid rice. A separate list of farmers was prepared for each selected village and arranged according to the category of farmers i.e. marginal, small, medium, and big farmers. Therefore, a total of 360 respondents were selected through random sampling techniques, 15 framers were selected from each village.

The variables are selected according to the objectives of the study. The selected variables categorized into the Independent variable and dependent variables. The suitable statistical tools/techniques were used for computing the data and inferences to be drawn. The present study carried out during the year 2020-2021. A structured schedule was developed by researcher with the help of guide for specially this study through various resources like research paper and because of locality. The schedule was contained various details like independent and dependent variables. The data was collected by personal interview. Simple comparisons were made based on frequency and percentage.

Result and Discussion

Table 1: Distribution of the respondents on the basis of age N=360

| S. No. | Categories (years) | Respondents | |
|--------|------------------------|-------------|---------|
| | | Frequency | Percent |
| 1. | Young age (up to 34) | 72 | 20.00 |
| 2. | Middle age (35-55) | 178 | 49.44 |
| 3. | Old age (56 and above) | 110 | 30.55 |
| | Total | 360 | 100.00 |

Mean=45.01, S.D. =10.83, Min. =28, Max. =72

Table 1 reveals that majority of the respondents was belonged to middle age group (35-55 years) 49.44per cent followed by old age group (56 and above) 30.55per cent and rest of all respondents belonged to the young age group (Up to 34) 20.00 per cent, respectively. The age of the selected respondents ranged from 28 to 72 years. The mean of age of the respondents was observed 45.01 years.

Table 2: Distribution of the respondents on the basis of education N=360

| S. No. | Categories | Respondents | |
|--------|--------------------------|-------------|-------|
| | | Frequency | % |
| 1. | Illiterate | 50 | 13.89 |
| 2. | Literate | 310 | 86.11 |
| 2. a. | Primary school | 70 | 19.44 |
| 2. b. | Middle school | 53 | 14.72 |
| 2. c. | High school | 58 | 16.11 |
| 2. d. | Intermediate | 98 | 27.22 |
| 2. e. | Graduate & Post graduate | 31 | 08.61 |

Table 2 reveals that the majority of the respondents were literate 86.11 per cent and rest of respondents 13.89 per cent illiterate. Literate respondents further categorized in five categories, and their educational status worked out. Table 2

also revealed that most of respondents completed intermediate 27.22 per cent followed by primary school 19.44 per cent, high school 16.11per cent, middle school 14.72 per cent and graduate and postgraduate 08.61 per cent respectively. It also revealed that educational status of respondents excellent in comparison of both district Azamgarh 70.90 per cent as well as Sonbhadra district 64.00 per cent.

Table 3: Distribution of the respondents on the basis of caste N=360

| S. No. | Categories | Respondents | |
|--------|------------------------|-------------|--------|
| | | Frequency | % |
| 1. | General caste | 180 | 50.00 |
| 2. | Other Backward classes | 120 | 33.33 |
| 3. | Scheduled caste | 60 | 16.66 |
| | Total | 360 | 100.00 |

Table -3 depicted that the majority of respondents belonged to general caste 50.00per cent, followed by scheduled caste 33.33per cent and other backward caste category 16.66per cent, respectively. Therefore, it concluded that the general caste was dominated over other backward classes and schedule caste in study area.

Table 4: Distribution of the respondents on the basis of family type
N=360

| S. No. | Family type | Respondents | |
|--------|-----------------------|-------------|--------|
| | | Frequency | % |
| 1. | Nuclear/Single family | 187 | 51.94 |
| 2.. | Joint family | 173 | 48.05 |
| | Total | 360 | 100.00 |

Table -4 Indicated type of family of respondents. It revealed that most of respondents were observed in nuclear/single families 51.94 per cent and rest of rest of respondents came in joint family 48.05 per cent. It was evident from that above that in recently rural society prefers single family instead of joint family.

Table 5: Distribution of the respondents on the basis of family size
N=360

| S. No. | Categories (members) | Respondents | |
|--------|----------------------|-------------|--------|
| | | Frequency | % |
| 1. | Small (up to 4) | 90 | 25.00 |
| 2. | Medium (5-8) | 186 | 51.66 |
| 3. | Large (9 and above) | 84 | 23.33 |
| | Total | 360 | 100.00 |

Mean= 6.16, S.D. =2.49, Min=3, Max=15.

5 depicted the size of family of respondents and it revealed maximum number of respondents found in medium category and their accounts 51.66 per cent followed by medium category 25.00per cent and large category 23.33per cent, respectively. It also revealed that majority of respondents belongs to medium size of family. Mean 6.16, Standard deviation 2.49, min 3 and max 15 members were observed in study area.

Table 6: Distribution of the respondents on the basis of land holding (hectares) N=360

| S. No. | Categories (hectares) | Respondents | |
|--------|-----------------------|-------------|-------|
| | | Frequency | % |
| 1. | Marginal farmers | 156 | 43.33 |
| 2. | Small farmers | 120 | 33.33 |
| 3. | Medium | 44 | 12.22 |
| 4 | Large farmers | 40 | 11.11 |
| | Total | 360 | 100.0 |

Mean=1.17, S.D. =0.73, Min=0.3, Max= 5.

The Table 6 depicted that 43.33 per cent of respondents were observed less than 1 ha of land and they belonged to marginal farmer's category. Whereas, small farmers, medium and large

Table 9: Distribution of the respondents on the basis of housing pattern N=360

| S. No. | Housing pattern | Respondents | |
|--------|-----------------|-------------|--------|
| | | Frequency | % |
| 1. | Kuchcha | 60 | 16.66 |
| 2. | Mixed | 198 | 55.00 |
| 3. | Pucca | 102 | 28.33 |
| | Total | 360 | 100.00 |

Table-9 depicted the type of house possession of respondent in study area. The mixed type of house was found 55.00per

farmers accounted 33.33 per cent, 12.22 per cent and 11.11 per cent land holding, respectively in study area. The mean of land holding was found to be 1.178 hectare, S.D. 0.73 ha, minimum of 0.3 and maximum of 5.0 hectares.

Table 7: Distribution of the respondents on the basis of occupation
N=360

| S. No. | Occupation | Main | | Subsidiary | |
|--------|------------------------|-----------|-------|------------|-------|
| | | Frequency | % | frequency | % |
| 1. | Agriculture labour | 00 | 00 | 63 | 17.50 |
| 2. | Caste based occupation | 22 | 6.11 | 31 | 8.61 |
| 3. | Government Service | 24 | 6.66 | 36 | 10.00 |
| 4. | Private Service | 18 | 5.00 | 09 | 2.38 |
| 5. | Agriculture | 150 | 41.66 | 20 | 5.55 |
| 6. | Business | 13 | 3.61 | 05 | 1.38 |
| 7. | Agro-based enterprises | 04 | 1.11 | 14 | 3.88 |
| 8. | Dairying | 00 | 00 | 07 | 1.94 |
| 9. | Gardening | 9 | 2.50 | 4 | 1.11 |

Table 7 revealed that the maximum respondents were engaged in agriculture 41.66 per cent followed by Govt. services 6.66 per cent, caste based occupation 6.11 per cent, Private service 5.00 per cent, business 3.61per cent, gardening 2.50 per cent and agro-based enterprises accounts 1.11 per cent respectively. The maximum respondents were observed whose subsidiary occupation as agriculture labour 17.50 per cent, followed by govt. services 10.00per cent, caste based occupation 8.61per cent, agriculture 5.5per cent, agro-based enterprises 3.88 per cent, dairying 1.94 per cent and gardening and 1.11 per cent, respectively.

Table 8: Distribution of the respondents on the basis of annual income (Rs.) N=360

| S. No. | Annual income (Rs.) | Respondents | |
|--------|-------------------------|-------------|--------|
| | | Frequency | % |
| 1. | Small (up to 93623) | 93 | 25.83 |
| 2. | Medium (93624-295483) | 187 | 51.94 |
| 3. | High (295484 and above) | 80 | 22.22 |
| | Total | 360 | 100.00 |

Mean =194583, S.D. =100899.9, Min. =Rs 46000, Max. =425000.

Table -8 indicted that maximum number of the respondents belonged to the annual income of medium (Rs.93624-295483) 51.94per cent followed by small (up to 93623 Rs.) 25.83 per cent and high (295484 and above) 22.22per cent, respondents were found in high income range from Rs. (295484 and above), respectively

cent followed by pucca houses 28.33per cent and kuchcha house 16.66per cent, respectively in study area.

Table 10: Distribution of the respondents on the basis of social participation N=360

| S. No. | Participation | Respondents | |
|--------|---|-------------|--------|
| | | Frequency | % |
| 1. | No participation in any organization | 72 | 20.00 |
| 2. | As a member in one organization | 136 | 42.22 |
| 3. | As a member of two organizations/office bearer | 152 | 37.77 |
| 4. | Participation in more than two organization/Office bearer | 00 | 00 |
| | Total | 360 | 100.00 |

Table 10 indicated that 42.22 per cent of the respondents were participated as member of two organizations/office bearer followed by 37.77 per cent participated in one organization

and 20.00 per cent respondents having No participation in any organization.

Table 11(A): Distribution of the respondents on the basis of farm power N=360

| S. No. | Farm power | Respondents | |
|--------|-------------------------|-------------|-------|
| | | Frequency | % |
| 1. | Bullock | 10 | 2.77 |
| 2. | Pumping set / tube well | 107 | 29.72 |
| 3. | Electric motor | 82 | 22.78 |
| 4. | Diesel engine | 135 | 37.50 |
| 5. | Tractor | 26 | 07.22 |

Table 11(A) depicted that the possession of farm power & machinery among the respondents. It revealed from table 11(A) that Diesel engine were found in 37.50 per cent of

respondents followed by own pumping set/ tube well 29.72 per cent, electric motor 22.78 per cent, tractor 07.22 per cent and bullock 2.77 per cent respondents, respectively.

Table 11(B): Distribution of the respondents on the basis of agriculture implements N=360

| S. No. | Farm implements | Respondents | |
|--------|-----------------|-------------|--------|
| | | Frequency | % |
| 1. | Thresher | 24 | 10.00 |
| 2. | Sprayer | 28 | 11.66 |
| 3. | Deshi plough | 08 | 3.33 |
| 4. | Chaff cutter | 195 | 81.25 |
| 5. | Seed drill | 05 | 2.08 |
| 6. | Rotavater | 16 | 6.66 |
| 7. | Khurpi | 360 | 100.00 |
| 8. | Duster | 15 | 6.25 |
| 9. | Pata | 32 | 33.13 |
| 10. | Kudal | 360 | 100.00 |
| 11. | Shovel | 220 | 91.66 |
| 12. | Cultivator | 22 | 9.16 |
| 13. | Potato planter | 07 | 2.91 |
| 14. | Sickle | 360 | 100 |

The Table 11(B) revealed the possession of agricultural implements among the respondents presented. It evident from the table that 81.25 per cent of the respondents having Kudal, kurpi followed by Shovel (91.66per cent), Chaff cutter

81.25per cent, Pata 33.13, Sprayer 11.66 per cent, Thresher 10.00 per cent, Cultivator 9.16per cent, Rotaveter 6.66per cent, Duster 6.25per cent, Deshi plough 3.33per cent, Potato planter 2.91per cent and Seed drill 2.08per cent, respectively.

Table-11(C): Distribution of the respondents on the basis of house hold materials N=360

| S. No. | Particulars | Respondents | |
|--------|-------------------------|-------------|-------|
| | | Frequency | % |
| 1. | Fan/Cooler | 218 | 90.83 |
| 2. | Sewing machine | 88 | 36.66 |
| 3. | Stove | 68 | 28.33 |
| 4. | Bed | 170 | 70.83 |
| 5. | Cots | 360 | 100 |
| 6. | Gas Cylinder/Gas Chulah | 165 | 68.75 |
| 7. | Heater | 56 | 23.33 |
| 8. | Pressure Cooker | 140 | 58.33 |
| 9. | Electric Press | 147 | 61.25 |
| 10. | Watch | 210 | 87.5 |
| 11. | Chair | 196 | 81.66 |
| 12. | Dressing Table | 12 | 5.00 |
| 13. | Crockery | 360 | 100 |
| 14. | Solar lantern | 178 | 74.16 |

The Table-11(C) depicted that sent per cent members having cots and crockery whereas fan/cooler 90.83per cent, wrist watch 87.5per cent, chairs 81.66per cent, solar lantern 74.16per cent, bed 70.83per cent, gas cylinder and gas chullah each 68.75per cent, electric press 61.25per cent, pressure Cooker 58.33per cent, sewing machine 36.66per cent, stove 28.33per cent, heater 23.33per cent and dressing table 7.00 per cent, respectively, observed in study area.

Table 11(D): Distribution of the respondents on the basis of transportation materials N=360

| S. No. | Medium of Transportation | Respondents | |
|--------|---------------------------|-------------|-------|
| | | Frequency | % |
| 1. | Bullock cart | 04 | 1.66 |
| 2. | Motor Cycle/ Scooter | 146 | 60.83 |
| 3. | Truck | 00 | 00 |
| 4. | Pick Up | 22 | 9.16 |
| 5. | Cycle | 190 | 79.16 |
| 6. | Bus | 00 | 00 |
| 7. | Tractor / Tractor Trolley | 26 | 10.83 |
| 8. | Jeep/ Car | 38 | 15.83 |

It evident from Table-11(D) those 79.16 per cent respondents were used cycle as means of transportation followed by 60.83 per cent motor cycle/scooter, 15.83 per cent jeep/car, 10.00 per cent tractor/ tractor trolley, 09.00 per cent pickup and 01.66 per cent bullock cart, respectively in study area.

Table 11(E): Distribution of the respondents on the basis of communication media possession N=360

| S. No. | Communication media | Respondents | |
|--------|----------------------------|-------------|-------|
| | | Frequency | % |
| 1. | Radio | 110 | 45.83 |
| 2. | T.V. | 196 | 81.66 |
| 3. | Tape Recorder/ VCD Player | 56 | 23.33 |
| 4. | Newspaper | 45 | 18.75 |
| 5. | General Magazines | 24 | 10.00 |
| 6. | Agriculture Books | 17 | 7.08 |
| 7. | Mobile Phone | 218 | 90.83 |
| 8. | Computer/Laptop | 35 | 14.58 |
| 9. | Internet Connection | 28 | 11.66 |
| 10. | Agril. Journals/ Magazines | 15 | 06.26 |
| 11. | D.T.H./ Dish Cable | 196 | 81.66 |

It evident from the Table 11(E) that majority of respondents were used mobile phone 90.83 per cent for communication purpose where as T.V. and D.T.H./Dish Cable 81.66per cent, Radio 45.83per cent, Tape Recorder/ VCD Player 23.33per cent, Newspaper 18.75per cent, Computer/Laptop 14.58per cent, internet connection 11.66per cent, Agriculture Books 07.08per cent and Agriculture Journals/ Magazines 6.26per cent, respectively used for communication purpose in study area.

Summary and Conclusion: Most of farmers are belonged to age group (35-55 years) 49.44per cent and majority of people belongs to general category. Majority of respondents educated, most of respondents have mixed house, majority of farmers depends on agriculture as a source of income, most of farmers having marginal farmers and their income falls under medium income. It also concluded that majority of respondents are belongs to nuclear family. It observed that 42.22 per cent of the respondents were participated as member of two organizations/office bearer followed by 37.77 per cent participated in one organization and 20.00 per cent

respondents having No participation in any organization. Respondents were used cycle as means of transportation. Sent per cent members having cots and crockery in term of house hold material. It also evident from that sent per cent of the respondents having Kudal, kurpi found as source of agricultural material. Majority of respondents were used mobile phone 90.83 per cent for communication purpose

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