Original Research Article

Profile Characteristics of the Farmers followed indigenous agricultural practices in Rayalaseema region of Andhra Pradesh

ABSTRACT

The study was conducted with an Ex-post facto research design in Rayalaseema region of Andhra Pradesh to identify the profile characteristics of the farmers followed indigenous agricultural practices in major three crops (paddy, groundnut and red gram). Data were collected from a randomly selected 180 farmers from two districts i.e. Ananthapur and Kurnool of Rayalaseema region by personal interview method. The results revealed that majority of the respondents are middle aged (60.00%), illiterates (37.78%), semi-medium farmers (36.11%), had medium farming experience (52.22%) with medium family size (77.78%), family income (41.11%), extension contact (47.77%), mass media exposure (45.56%), innovativeness (41.67%), fatalism (63.89%), social participation (55.56%), achievement motivation (41.11%), scientific orientation (44.45%), economic orientation (62.22%), market orientation (59.45%) and attitude towards indigenous agricultural practices (50.56%).

Keywords: Profile Characteristics, Farmers, Ex-post facto research design, Simple random sampling, Personal interview, Indigenous agricultural practices.

1. INTRODUCTION

Indian agriculture is predominantly of pro-nature and it was characterized by the cultivation practices aiming at sustainable productivity even though the production level was subsistence. These are referred as indigenous traditional knowledge or indigenous agricultural practices (IAPs). The Indigenous Technical Knowledge (ITK) system has been developed by the people based on their experiences and continuous improvement through informal experimentation over centuries and is adapted to local culture. These ITKs are interwoven and assimilated in the cultural life of the people. The traditional sources are often highly suited to the ecology of the region and for the farmers concerned. Farmers are very keen to observe the problems arising during farming and seek solutions to adjust to their local environment conditions, thereby developing a rich store house of practical

knowledge connected to their situation. They developed farming systems based on local resources with minimal use of outside inputs and henceforth it was evident that nescient farmers are capable of creating and maintaining large and complex systems to achieve mutually beneficial results.

2. MATERIAL AND METHODS

An Ex-post research design was adopted in the present investigation. Rayalaseema region of Andhra Pradesh state was selected purposively for the study as the researcher hails from the same area and was familiar with local language and culture. Two districts were selected purposively based on the highest cultivated area viz., Ananthapur and Kurnool. From Kurnool district, Bandi Atmakur, Devanakonda and Krishnagiri mandals were selected. From Ananthapur district, Kalyanadurgum, kudair and Atmakur mandals were selected based on the highest cultivated area. Two villages were selected from each of the 6 mandals by following simple random sampling thus making a total of 12 villages. From each village, 15 farmers were selected by following simple random sampling procedure, thus making a total of 180 respondents who were cultivating three crops i.e. paddy, groundnut and red gram.

3. RESULTS AND DISCUSSION

The data presented in Table 1 could be inferred that majority of the farmers were categorized into middle age group (60.00%), 31.11 per cent belonged to young age group and rest of them (8.89%) were in old age group categories. The reason might be that, young farmers might have engaged in non- agricultural activities and less interested in agricultural sector and they were moving to other commercial enterprises. This finding is in line with the results Rajput and Dighe (2010), Rahman (2012) and Nicolas and Cabarogias (2015).

It is evident from the Table 1 that majority of the respondents were illiterates (37.78%), followed by primary school (19.44%), functionally literate (18.89%), high school (10.56%), college level (7.22%) and middle school (6.11%) education.

It could be concluded that majority of the respondents were illiterate which might be due to a majority of them belonging to middle to old age group. Most of the farmers entered farming at a very young age leaving education and some of the farmers had different levels of education. High educational level may influence adoption of modern farming practices. This finding is in line with the results Rahman (2012) and Odoemelam and Ajuka (2015).

It could be inferred from the Table 1 that majority (36.11%) of the respondents were semimedium farmers followed by 27.22 per cent were medium farmers, 20.56 per cent were small farmers, 11.67 per cent were marginal farmers and very megre percentage (4.44%) of them were large.

It could be inferred that the sub division and fragmentation of the farm land from one generation to another generation is the main cause for declining the land holding size of each farmer in the rural areas.

Half of the (52.22%) farmers were grouped under medium farming experience followed by 25 per cent were high farming experience and remaining 22.78 per cent were low farming experience.

The medium experience of the respondents in farming might be attributed to their middle age. Further much experienced farmers would be in a better position to check well and standardize the indigenous agricultural practices with the help of their experience in farming. The longer the years of farming experience, the more exposed the farmer becomes and the more efficient the farmer is expected to be in the use of indigenous knowledge and practices for sustainable conservation of agro-biodiversity. This finding is in line with the results Sundaramari (2001) and Rahman (2012).

It is evident from the Table 1 that majority of (77.78%) the farmers were grouped under medium family size followed by 19.44 per cent were high family size and remaining 2.78 per cent were low family size. This finding is in line with the results Nicolas and Cabarogias (2015).

It could be indicated from the Table 1 that majority of the respondents had medium family income (41.11%) followed by low (36.67%) and high (22.22%) family income respectively. This might be because of majority of the farmers were having medium annual family income. It is quite natural when the farmers are having small land holding with agriculture as a major occupation, farmers can earn only medium annual family income. The findings is in agreement with the findings of Rambabu (1997).

It is evident from the Table 1 that nearly half (47.77%) of the respondents had medium extension contact followed by 33.33 per cent and 18.90 per cent had low and high extension contact respectively.

This might be the reason that majority of the farmers were found to be middle to old aged with low educational level and medium family income, they might have tried to exploit only a lesser opportunities to establish contacts with extension functionaries. This finding is in line with the results of Rajput and Dighe (2010).

It could be indicated from the Table 1 that, nearly half (45.56%) of the respondents had medium level of mass media exposure followed by low (29.44%) and high (25.00%) levels of mass media exposure respectively.

It could be observed that majority of the respondents had medium level of mass media exposure followed by low and high mass media exposure respectively. This is perhaps due to their low education, medium family income. Due to their low literacy level, they could not read newspapers, farm magazines and agricultural news articles. The poor financial status also does not facilitate the farmers to own electronic mass media devices like television, cable net work etc. This finding is in line with the results of Sundaramari (2001), Sunitha kumari (2008) and Rahman (2012).

Table 1. Distribution of respondents according to their profile characteristics

(n=180)

| S.No | Components | Categories | Frequency | Percentage |
|------|--------------------|-----------------------|-----------|------------|
| 1. | Age | Young | 16 | 8.89 |
| | | Middle | 108 | 60.00 |
| | | Old | 56 | 31.11 |
| 2. | Education | Illiterate | 68 | 37.78 |
| | | Functionally literate | 34 | 18.89 |
| | | Primary school | 35 | 19.44 |
| | - | Middle school | 11 | 6.11 |
| | | High school | 19 | 10.56 |
| | | College level | 13 | 7.22 |
| 3. | Farm size | Marginal | 21 | 11.67 |
| | | Small | 37 | 20.56 |
| | | Semi medium | 65 | 36.11 |
| | | Medium | 49 | 27.22 |
| | ,0_ | Large | 08 | 4.44 |
| 4. | Farming experience | Low | 41 | 22.78 |
| | | Medium | 94 | 52.22 |
| | | High | 45 | 25.00 |
| 5. | Family size | Low | 05 | 2.78 |
| | | Medium | 140 | 77.78 |
| | | High | 35 | 19.44 |
| 6. | Family income | Low | 66 | 36.67 |
| | | Medium | 74 | 41.11 |
| | | High | 40 | 22.22 |

| 7. | Extension contact | Low | 60 | 33.33 |
|-----|------------------------|--------|-----|-------|
| | - | Medium | 86 | 47.77 |
| | | High | 34 | 18.90 |
| 8. | Mass media exposure | Low | 53 | 29.44 |
| | | Medium | 82 | 45.56 |
| | | High | 45 | 25.00 |
| 9. | Innovativeness | Low | 48 | 26.66 |
| | | Medium | 75 | 41.67 |
| | | High | 57 | 31.67 |
| 10. | Fatalism | Low | 17 | 9.44 |
| | | Medium | 115 | 63.89 |
| | 1 | High | 48 | 26.67 |
| 11. | Social participation | Low | 72 | 40.00 |
| | | Medium | 100 | 55.56 |
| | | High | 08 | 04.44 |
| 12. | Achievement motivation | Low | 52 | 28.89 |
| | | Medium | 74 | 41.11 |
| | | High | 54 | 30.00 |
| 13. | Scientific orientation | Low | 47 | 26.11 |
| | | Medium | 80 | 44.45 |
| | 4 | High | 53 | 29.44 |
| 14. | Economic orientation | Low | 13 | 7.22 |
| | | Medium | 112 | 62.22 |
| | | High | 55 | 30.56 |
| 15. | Market orientation | Low | 26 | 14.44 |
| | | Medium | 107 | 59.45 |
| | - | High | 47 | 26.11 |

| 16. | Attitude | towards | Low | 46 | 25.56 |
|-----|------------|--------------|--------|----|-------|
| | indigenous | agricultural | | | |
| | practices | | | | |
| | | | Medium | 91 | 50.56 |
| | | | | | |
| | | | High | 43 | 23.88 |
| | | | | | |

It could be indicated from the Table 1 that majority (41.67%) of the respondents had high innovativeness followed by 31.67 per cent had medium innovativeness and 26.66 per cent had low innovativeness.

It could be observed that majority of the respondents had medium innovativeness followed by high and low innovativeness respectively. This is perhaps due to medium level of extension contact and medium mass media contact. This finding is in line with the results of Sundaramari (2001).

It could be indicated from the Table 1 that more than half (63.89%) of the farmers had medium fatalism followed by 26.67 per cent had low fatalism and 9.44 per cent had low fatalism. It could be observed that majority of the farmers had medium fatalism, this might be the reason that majority of the farmers were middle aged, illiterate and with medium level of innovativeness. This finding is in line with the results of Ambegaonkar and Wangikar (1988) and Sundaramari (2001).

It could be inferred from the Table 1 that majority of the respondents had medium level of social participation (94.45%) followed by high (4.44%) and low (1.11%) level of social participation respectively. It could therefore be inferred that a majority of respondents were found to have medium level of social participation, it might also be due to their low level of education and not knowing the importance of the organizations. This finding is in line with the results of Sundaramari (2001).

It could be indicated from the Table 1 that majority of the respondents had medium (41.11%) level of achievement motivation followed by high (30.00%) and low (28.89%) level of achievement motivation respectively. It could be the reason that majority of the farmers were middle aged, medium extension contact, medium economic orientation and medium market orientation. This finding is in line with the results of Naik (2006) and Begum (2008).

It could be indicated from the Table 1 that nearly half (44.45%) of the respondents had medium scientific orientation followed by 29.44 per cent of them had high scientific orientation and 26.11 per cent had low scientific orientation.

It could be the reason that majority of the farmers were under medium scientific orientation followed by high and low scientific orientation respectively. The reason behind this may be that the farmers with medium social participation, medium extension contact and medium mass media exposure might had less knowledge about scientific developments, thus they were medium in scientific orientation. This finding is in line with the results of Sundaramari (2001).

It could be indicated from the Table 1 that more than half (62.22%) of the respondents had medium economic orientation followed by 30.56 per cent of them had high economic orientation and 7.22 per cent had low economic orientation.

It could be observed that majority of the farmers had medium economic orientation, this might be the reason that majority of the farmers were illiterate, medium family income, medium mass media exposure, medium extension contact and medium market orientation due to which it has become difficult to orient towards profit maximization in farming and the farmers are not getting the remunerative prices for their produce. This finding is in line with the results of Kumar (1994), Rambabu (1997) and Sunitha kumari (2008).

It could be indicated from the Table 1 that more than half (59.45%) of the respondents had medium market orientation followed by 26.11 per cent of them had high market orientation and 14.44 per cent had low market orientation.

It could be the reason that majority of the farmers had medium market orientation, this might be the reason that majority of the farmers were illiterate, medium family income and had medium economic orientation. It might also be the reason that farmers had medium mass media exposure, it indicated that farmers lack knowledge on market prices of the produce. This finding is in line with the results of Gopinath (2005).

It could be indicated from the Table 1 that half (50.56%) of the respondents had medium (50.56%) level of attitude towards indigenous agricultural practices followed by low (25.56%) and high (23.88%) level of attitude towards indigenous agricultural practices respectively. It could be the reason that majority of the farmers had medium attitude towards indigenous agricultural practices followed by high and low attitude towards indigenous agricultural practices which might be due to majority of the farmers were middle aged, illiterate, medium extension contact, medium mass media exposure and medium social participation. This finding is in line with the results of Rahman (2012).

4. CONCLUSION

The findings with regard to the selected profile characteristics of the respondents indicate that majority of the respondents were belonged to middle age (60.00%), illiterate (37.78%), semi-medium farmers (36.11%), medium farming experience (52.22%), medium family size (77.78%), medium family income (41.11%), medium extension contact (47.77%), medium mass media exposure (45.56%), medium innovativeness (41.67%), medium fatalism (63.89%), medium social participation (55.56%), medium achievement motivation (41.11%), medium scientific orientation (44.45%), medium economic orientation (62.22%), medium market orientation (59.45%) and medium attitude towards indigenous agricultural practices (50.56%).

REFERENCES

- Ambegaonkar, A.R and Wangikar, S.D. 1988. A study on the attitude of tribal farmers towards new agricultural technology. *Tribal Research Bulletin*, X(11):30-31.
- Amelia R. Nicolas and Argie S. Cabarogias. 2015. Indigenous knowledge and sustainable pest management in rice farming communities of Southeastern Luzon, Philippines. *International Journal on Adavanced Science Engineering Information Technology*. Vol.15. No.6.
- Begum, M.K. 2008. A study on participation and decision making of women farmers in rainfed groundnut cultivation. *M.Sc. (Ag.) Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad, India.

- Gopinath, M. 2005. Knowledge and adoption of Bengal gram farmers in Kurnool district of Andhra Pradesh. *M.Sc.* (*Ag.*) *Thesis.* Acharya N.G. Ranga Agricultural University, Hyderabad.
- Kumar C. Mahesh. 1994. Knowledge and adoption of tribal farmers with respect to sericulture technology in Khammam district of Andhra Pradesh. *M.Sc.* (A.g) Thesis. Andhra Pradesh Agricultural University (EEI), Hyderabad.
- Md Mostafizur Rahman. 2012. Practice Of Indigenous Knowledge System By The Farmers In Maintaining Ecosystem In Bangladesh. *Journal of Agricultural Sciences*. Vol. 57. No. 3.
- Naik, K.P.K.2006. Training needs of groundnut farmers of Anantapur district of Andhra Pradesh. *M.Sc.* (*Ag.*) *Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad, India.
- Odoemelam, L.E. and Ajuka, P.N. 2015. Indigenous farm management practices among rural farmers: implications for sustainable environment in south-east agro ecological zone, Nigeria. *Discourse Journal of Agriculture and Food Sciences*. Vol. 3(1): 7-14.
- Rajput, U.U and Dighe, A.G. 2010. Personal co-relation of indigenous agricultural practices. *Agriculture update*. Vol.5.
- Rambabu, P. 1997. Indigenous Technologies in Cropping Systems an Analytical Study in Guntur District of Andhra Pradesh. *Un pub. Ph.D.Thesis*, Acharya N.G. Ranga Agricultural University, Hyderabad.
- Sundaramari, M. 2001. Adoption and perceived effectiveness of indigenous agricultural practices in different farming systems. Doctoral dissertation submitted to Gandhigram Rural Institute (Deemed University), Tamil Nadu, India.
- Sunithakumari. 2008. A study on indigenous technical knowledge of tribal farmers in agriculture of Jharkhand state. *M.Sc. (Ag.) Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad, India.