

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 3; March 2026; Page No. 82-85

Received: 08-01-2026
Accepted: 17-02-2026

Indexed Journal
Peer Reviewed Journal

To study the profile characteristics of IFS farmers in Cuddalore district of Tamil Nadu

¹M Jessy Priya and ²T Raj Pravin

¹Ph.D. Research Scholar, Department of Agricultural Extension, Faculty of Agriculture, Annamalai University, Chidambaram, Tamil Nadu, India

²Associate Professor, Department of Agricultural Extension, Faculty of Agriculture, Annamalai University, Chidambaram, Tamil Nadu, India

DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i3b.3315>

Corresponding Author: T Raj Pravin

Abstract

The objective of this study was to study the profile characteristics of Integrated Farming System (IFS) farmers of Cuddalore district in Tamil Nadu. The data was collected from 300 IFS farmers who have been personally interviewed with the help of a well-structured and pre-tested interview schedule. The findings of the study revealed that the majority of the respondents were young, having primary school education, farming along with business as main occupation with low farming experience having landholdings up to 5 ac. The majority had medium utilization of mass media, medium economic motivation, high risk orientation, medium extension contact. Additionally, the majority of them had medium achievement motivation, moderately favourable attitude towards IFS, and medium income security.

Keywords: Profile characteristics, integrated farming system, extension contact, attitude towards IFS

Introduction

Agricultural growth of India since independence has been a testament to the resilience and perseverance of its farmers, who have met the nation's increasing food demand. India has become self-sufficient in the production of food grains since the introduction of semi-dwarf varieties and the Green Revolution in early 1960's. While boosting yields, the Green Revolution also led to the over-exploitation of natural resources which contributed to soil degradation and fragmentation of land holdings thus reducing the overall farm efficiency (Singh and Burark, 2016) ^[1]. Small land holdings have shrunk year to year and they are expected to keep declining, posing a significant challenge to food production and sustainability (Vinaya *et al.*, 2017) ^[2]. Only vertical expansion is possible by integrating appropriate farm components that takes up lesser space and time ensuring periodic income to farm families (Gill *et al.*, 2009) ^[3].

By promoting diversification and resource efficiency, IFS contributes to ecological sustainability and economic resilience among farming communities. The success and sustainability of Integrated Farming Systems do not depend on technological innovations alone but also on the socio-personal, economic and psychological characteristics of farmers. Socio-economic attributes play a crucial role in shaping farmers production decisions, adoption behaviour and livelihood outcomes. Empirical studies across developing countries consistently show that higher education attainment, better information access and stronger

extension linkage enhances livelihood security of farmers by improving food availability and employment generation (Dessart, 2019; Khobragade *et al.*, 2021) ^[4, 5]. Understanding these characteristics is essential for developing effective extension strategies that encourage wider adoption of integrated farming systems.

The present study was undertaken with the objective of analysing the profile characteristics of IFS farmers in Cuddalore district of Tamil Nadu. The findings of the study are expected to provide insights for extension agencies and policy makers for designing targeted interventions to strengthen the adoption and sustainability of Integrated farming systems.

Materials and Methods

In this study, an Ex-post-facto research design was adopted. The study was conducted in the year 2024-25 with the objective of studying profile characteristics of Integrated Farming System farmers in Cuddalore district of Tamil Nadu. The district comprises of 14 blocks, out of which 7 blocks were selected namely Annagramam, Panruti, Kurinjipadi, Cuddalore, Srimushnam, Keerapalayam, Melbhuvanagiri. They have been selected purposively and a random selection of 5 villages from each block has been taken and ten farmers from each village have been selected using the equal allocation method to get a sample size of 300 farmers. The data from respondents was collected using a pre-tested interview schedule.

Results and Discussion

Age

Table 1: Distribution of respondents according to Age

S.no	Categories (years)	Frequency	Percentage
1	Young (<35 years)	116	38.7
2	Middle age (36-50 years)	101	33.6
3	Old age (>50 years)	83	27.7
	Total	300	100

Table 1 reveals that, majority (38.7%) of the respondents belonged to young age category followed by middle age group (33.6%) and old age (27.7%) categories. The predominance of younger farmers indicated an increasing participation of economically active and progressive farmers in diversified agricultural enterprises. The involvement of younger farmers may reflect the changing perceptions of agriculture as a viable livelihood option when supported by multiple income sources. The study also shows that the adoption of IFS is not restricted to single age group but is gradually gaining acceptance across different farming generations. The findings are in line with the findings of Khalid *et al.*, (2017)^[6].

Educational Status

Table 2: Distribution of respondents according to their Educational Status

S. no	Categories	Frequency	Percentage
1	Illiterate	39	13
2	Primary school	92	31
3	Secondary Education	63	21
4	Higher Secondary	84	28
5	Graduation	22	7
	Total	300	100

The data presented in the table 2 revealed that majority of the respondents (31%) had primary education while 28% per cent had higher secondary education followed by secondary education (21%) and about (13%) were illiterate and only (7%) of them were graduates. It can be concluded that more than 80% of the respondents were educated to a satisfactory level.

Occupational Status

Table 3: Distribution of respondents according to their Occupational Status

S.no	Categories	Frequency	Percentage
1	Farming + Service	40	13.3
2	Farming + Business	100	33.4
3	Farming + Agricultural labour	90	30
4	Farming as sole profession	70	23.3
	Total	300	100

The Table 3 reveals that majority of respondents (33.4%) were practising farming and business followed by those practising farming alongside as farm labour (30%). About (23.3%) of them practised farming as sole profession while (13.3%) practised farming along with service activities as

their occupation.

Farming Experience

Table 4: Distribution of respondents according to their Farming Experience

S.no	Categories	Frequency	Percentage
1	Low	209	69.7
2	Medium	60	20
3	High	31	10.3
	Total	300	100

The Table 4 reveals that majority of the respondents had (69.7%) low farming experience followed by medium level (20%) of farming and (10.3%) of them had high level of farming experience. Low farming experience among farmers indicates the recent adoption of IFS. Therefore, farmers with low farming experience may be receptive to innovative strategies as they are comparatively less accustomed to long standing traditional farm practices.

Land Holding

Table 5: Distribution of respondents according to their Land Holdings

S.no	Categories	Frequency	Percentage
1	Marginal land holding - up to 2.5ac	81	27
2	Small land holding - 2.6 to 5ac	102	34
3	Medium land holding - 5.1 to 10ac	75	25
4	Large land holding - > 10ac	42	14
	Total	300	100

The data presented in table 5 indicates that majority of the respondents (34%) had smaller land holdings. 27% of them had marginal land holdings while 25% of them had medium land holdings followed by 14% of them having large land holdings. The predominance of small and marginal farmers indicated that integration of farming systems is particularly prevalent where land resources are limited which can help farmers increase their productivity and income per unit area. Similar findings were reported by Pradeep *et al.*; (2025)^[7].

Mass Media Utilization

Table 6: Distribution of respondents according to their Mass Media Utilization

S.no	Categories	Frequency	Percentage
1	Low	97	32.3
2	Medium	114	38
3	High	89	29.7
	Total	300	100

The Table 6 reveals that majority of the respondents (38%) had medium level of mass media utilization followed by low level of utilization (32.3%) and high level of utilization (29.7%). Farmers with higher mass media exposure are more likely to access information related to new farming practices, government schemes, and market opportunities. These findings are in conformity with the findings of Madhuprasad *et al.*; (2024)^[8].

Economic Motivation

Table 7: Distribution of respondents according to their Economic Motivation

S.no	Categories	Frequency	Percentage
1	Low	60	20
2	Medium	100	33.3
3	High	140	46.7
	Total	300	100

The Table 7 shows that majority of the respondents (46.7%) had high economic motivation followed by (33.3%) of respondents having medium economic motivation and (20%) of them having low economic motivation. Presence of high economic motivation among the respondents suggest a favourable environment for adoption of Integrated Farming System among farmers. These findings align with Vani (2023)^[9] and Pradeep *et al.*; (2025)^[7].

Risk Orientation

Table 8: Distribution of respondents according to their Risk Orientation

S.no	Categories	Frequency	Percentage
1	Low	82	27.3
2	Medium	68	22.7
3	High	150	50
	Total	300	100

Data presented in table 8 shows that almost half of the respondents (50%) had high risk orientation while 27.3% of the respondents had low risk orientation and 22.7% of them had medium level of risk orientation. High risk orientation among farmers indicates their willingness to experiment and take calculated risks to increase their farm production, income and to ensure livelihood security.

Extension Agency Contact

Table 9: Distribution of respondents according to their Extension Contact

S.no	Categories	Frequency	Percentage
1	Low	51	17
2	Medium	134	44.7
3	High	115	38.3
	Total	300	100

The Table 9 revealed that majority of the farmers (44.7%) in this study had medium level of extension contact, while 38.3% of respondents had high extension contact followed by 17% with low extension contact. Extension Agency Contact plays a crucial role in guiding farmers through various aspects like enterprise integration, resource recycling, and efficient farm management practices. The findings are supported by Chandana *et al.*, (2021)^[10] and Pradeep *et al.*, (2025)^[7].

Scientific Orientation

Table 10: Distribution of respondents according to their Scientific Orientation

S.no	Categories	Frequency	Percentage
1	Low	75	25
2	Medium	135	45
3	High	90	30
	Total	300	100

The data presented in table 10 shows that most of the respondents (45%) had medium level of scientific orientation, whereas 30% of them had higher scientific orientation and 25% of them had low scientific orientation respectively.

Achievement Motivation

Table 11: Distribution of respondents according to their Achievement Motivation

S.no	Categories	Frequency	Percentage
1	Low	90	30
2	Medium	138	46
3	High	72	24
	Total	300	100

The Table 11 shows that majority of the respondents (46%) had higher risk motivation followed by 30% of them having lower achievement motivation and 24% of the respondents having high level of achievement motivation. Most IFS farmers had medium achievement motivation, being risk takers, ambitious and open to new ideas. This motivation helped them set and achieve goals aligning with Shwetha (2019)^[11].

Attitude towards IFS

Table 12: Distribution of respondents according to their Attitude towards IFS

S.no	Categories	Frequency	Percentage
1	Low	80	26.7
2	Medium	141	47
3	High	79	26.3
	Total	300	100

Table 12 shows that majority of the farmers (47%) had medium level of favourable attitude towards IFS while 26.7% of them high level of attitude and 26.3% had low level of attitude towards IFS. Predominance of medium level of attitude towards IFS among farmers suggests that they recognize the benefits of integrated farming but some may still perceive challenges related to high initial investments which could be addressed through strengthening their attitude towards IFS through more extension demonstrations and exposure visits. The results are in line with the findings of RD Bhoir *et al.*, (2021)^[12].

Income Security

Table 13: Distribution of respondents according to their Income Security

S.no	Categories	Frequency	Percentage
1	Low	77	25.7
2	Medium	131	43.7
3	High	92	30.6
	Total	300	100

Data from table 13 reveals that majority of the respondents (43.7%) had medium income security, while 30.6% of them had high income security followed by 25.7% of them having low-income security. IFS reduces farmers dependence on a single enterprise by distributing the economic risks across multiple farm components and this diversification helps farmers to achieve income stability and resilience against crop failures or market fluctuations.

Training Undergone

Table 14: Distribution of respondents based on Trainings Undergone

S.no	Categories	Frequency	Percentage
1	No training	78	26
2	1-5 trainings	107	35.7
3	6-10 trainings	62	20.6
4	>10 trainings	53	17.7
	Total	300	100

Table 14 revealed that majority of the respondents (35.7%) had attended up to five trainings programmes in this study, while 20.6% of them had attended 6-10 trainings and 17.7% of them attended more than 10 trainings. However, a notable proportion of respondents (26%) never attended any trainings.

Conclusion

The present study studied the socio-personal, economic and psychological characteristics of Integrated Farming System (IFS) farmers in Cuddalore district of Tamil Nadu. The findings revealed that majority of them were young and middle-aged farmers with moderate levels of education. The predominance of small and marginal landholdings indicates the suitability of Integrated Farming Systems for improving productivity and income even with limited land resources. The findings further indicated that majority of farmers showed high economic motivation and risk orientation, suggesting their willingness to adopt IFS to enhance their livelihood. Medium levels of scientific orientation, extension contact, mass media utilization and attitude towards IFS indicate a reasonable level of exposure to agricultural innovations and institutional support. Overall, this study highlights the potential of IFS in improving income stability and livelihood security among farmers. Further strengthening of extension services, expanding training programmes, and promoting awareness about integrated farming practices could further enhance the adoption and sustainability of IFS in the near future.

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