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#### Dhavale ND

PG Student, Department of  
Extension Education, COA,  
VNMKV, Parbhani,  
Maharashtra, India

#### Kapse PS

Associate Professor, Department  
of Extension Education, COA,  
VNMKV, Parbhani,  
Maharashtra, India

#### Lad AS

Assistant Professor, Department  
of Extension Education, COA,  
VNMKV, Parbhani,  
Maharashtra, India

## Correlation between profile of the respondents and their awareness about integrated farming system

Dhavale ND, Kapse PS and Lad AS

### Abstract

Integrated Farming System combine farming, livestock, and agro-industry in an expanded symbiotic or synergistic system, so that the wastes of one process become the input for other processes, with or without treatment to provide the means of production, such as energy, fertilizer, and feed for optimum productivity at minimum costs. The present study was carried in the Marathwada region of Maharashtra state to understand correlation between the profiles of respondent farmers and their awareness about IFS. The study revealed that the majority of the respondent were educated up to secondary level of school, were belong to medium level of farming experience, annual income, majority, extension contact, mass media exposure, and utility of income. While majority of them having medium family size, having only farming occupation, semi-medium land holding and well as a source of irrigation. In case of correlation between profile of the respondents with their awareness about IFS, independent variables i.e. annual income and extension contact had highly positive and significant relationship with their awareness level of respondents about IFS. Whereas education, farming experience, family size, occupation, source of irrigation, social participation, mass media exposure, and utility of income of the respondent had positive and significant relationship with their awareness of IFS.

**Keywords:** Integrated farming system, correlation coefficient, awareness, profiles

### Introduction

Integrated Farming System (IFS) is based on the concept that there is no waste, and waste is only a misplaced resource which can become a valuable material for another product (Edwards *et al.* 1986) [2]. This approach is not only a reliable way to obtain a fairly high productivity with a substantial fertilizer economy, but also to obtain maximum compatibility and replenishment of organic matter by effectively recycling organic residue / waste obtained through integration from various land-based enterprises (Jayanti *et al.* 2003). Integrated Farming System combine farming, livestock, and agro-industry in an expanded symbiotic or synergistic system, so that the wastes of one process become the input for other processes, with or without treatment to provide the means of production, such as energy, fertilizer, and feed for optimum productivity at minimum costs. The concepts associated with Integrated Farming System are practiced by numerous farmers throughout the globe. A common characteristic of these systems is that they have a combination of crop and livestock enterprises and in some cases may include combinations of horticulture, sericulture, poultry etc. IFS provides an opportunity to increase economic yield per unit area per unit time by virtue of intensification of crop and allied enterprises. In Marathwada region of the Maharashtra State, very few farmers are adopted the Integrated Farming System. To the success of the Integrated Farming System, one can understand the actual awareness of farmers regarding the system and which are the personal characteristics of the farmers effect the awareness of the farmers about IFS. Keeping these facts in mind, the present study was designed to understand correlation between the profiles of respondent farmers and their awareness about IFS. The following specific objectives were formulated for the detailed study;

### Objectives

1. To study the profile of the respondents
2. To ascertain the relation between profile of the respondents and their awareness of integrated farming system.

### Materials and Methods

The present investigation was carried out in Parbhani district of Marathwada region of Maharashtra state.

#### Corresponding Author

#### Kapse PS

Associate Professor, Department  
of Extension Education, COA,  
VNMKV, Parbhani,  
Maharashtra, India

Random sampling design was adopted in selection of district, tehsils, and villages. Three tehsils viz., Parbhani, Manwat and Pathri were selected randomly from the district. Four villages were randomly selected from the selected takula. From each selected village, 10 farmers were selected randomly. In this way, a total of 120 farmers were considered as respondents for the present study. Ex-post facto research approach was used for the present study. The dependent variable in the study was awareness of IFS while education, farming experience, family size, occupation, land holding, source of irrigation, annual income, social participation, extension contact, mass media exposure and utilization of income were

independent variables. The data were classified, tabulated and analyzed in order to make findings meaningful for interpretation and drawing conclusions. For this, different statistical methods like Frequency and percentage, arithmetic mean, standard deviation and Karl Pearson's coefficient of correlation were used.

## Results and Discussion

### 1. Profile of the respondents

Profile i.e. personal, socio-economic and psychological characteristics of the respondents are presented in Table 1.

**Table 1:** Distribution of the respondents according to their profile (N=120)

Sr. No.	Profile of the respondents	Frequency	Percentage
<b>A</b>	<b>Education</b>		
1	Illiterate	13	10.83
2	Only can read	05	04.16
3	Read and write	13	10.83
4	Primary (1 <sup>st</sup> to 4 <sup>th</sup> )	18	15.00
5	Secondary (5 <sup>th</sup> to 10 <sup>th</sup> )	39	35.50
6	Higher Secondary (11 <sup>th</sup> to 12 <sup>th</sup> )	21	17.50
7	Graduate	11	09.16
<b>B</b>	<b>Farming Experience</b>		
1	Low ( up to 10)	36	30.00
2	Medium ( 11 to 40)	65	54.16
3	High (41 and above)	19	15.83
<b>C</b>	<b>Family Size</b>		
1	Low (up to 1)	07	05.83
2	Medium (2 to 9)	101	84.16
3	High (10 and above)	12	10.00
<b>D</b>	<b>Occupation</b>		
1	Farming only	44	36.66
2	Farming + Business	13	10.83
3	Farming + Allied Occupations	44	36.66
4	Farming+ Job	11	09.16
5	Farming+ Labour	08	06.66
<b>E</b>	<b>Land holding</b>		
1	Marginal (up to 1.00)	21	17.50
2	Small (1.01 to 2.00)	16	13.33
3	Semi medium (2.01 to 4.00)	48	40.00
4	Medium (4.01 to 10.00)	28	23.33
5	Big (10.01 and above)	07	05.83
<b>F</b>	<b>Source of irrigation</b>		
1	No Source of irrigation	15	12.50
2	Well	52	43.33
3	Borewell	05	04.16
4	Canal	08	06.66
5	Farm pond	24	20.00
6	Well + Canal	07	05.83
7	Farm pond + Well	03	02.50
8	Well + Canal + Borewell	01	00.83
9	Well + Borewell + Farm pond	05	04.16
<b>G</b>	<b>Annual Income</b>		
1	Low (up to 58431)	12	10.00
2	Medium (58432 to 421768)	90	75.00
3	High (421769 and above)	18	15.00
<b>H</b>	<b>Social Participation</b>		
1	Low (up to 0.10)	51	42.50
2	Medium (1 to 2)	18	15.00
3	High (3 and above)	51	42.50
<b>I</b>	<b>Extension Contact</b>		
1	Low (up to 2)	13	10.83
2	Medium (3 to 33)	89	74.16
3	High (34 and above)	18	15.00
<b>J</b>	<b>Mass Media Exposure</b>		
1	Low (up to 4)	26	21.66

2	Medium (5 to 9)	67	55.83
3	High (10 and above)	27	22.50
<b>K</b>	<b>Utility of income</b>		
1	Low (up to 16)	22	18.33
2	Medium (17 to 22)	77	64.16
3	High (23 and above)	21	17.50

Table 1 shows that the majority (35.50%) of the respondent were educated up to secondary level of school and (17.50%) of them were educated up to higher level of school. Whereas 15.00 per cent and 10.83 per cent of respondents were educated up to primary level and read and write, respectively. Followed by graduates level (9.16%), only can read (4.16%) and illiterate (10.83%). Regarding farming experience of the respondents, it is noted that majority of the respondents (54.16%) were belong to medium level of farming experience followed by low farming experience group (30.00%) and high farming experience group (15.83%). Thus, majority of respondent are medium farming experience. In case of family size of the respondents, it is reported that majority of respondents' family size was medium (84.16%), followed by high family size (10.00%) and low family size (5.83%).

Regarding occupation of the respondents, majority of the respondents (36.67%) having only farming occupation and similar percentage of the respondents having farming and allied occupations. Followed by farming and business (10.83%), farming and job (9.16%), farming and labour (6.66%). Table 1 also concluded that majority of the respondent (40.00%) were having semi-medium land holding (2.01 to 4.00 ha), Whereas 23.33 per cent of the respondent were having medium (4.00 to 10.00 ha) land holding, and followed by 17.50 per cent, 13.33 per cent and 5.83 per cent of them were having marginal (upto 1.00 ha), small (1.01 to 2.00 ha) and big (10.01 ha and above) land holding, respectively.

In case of the irrigation source, majority of the respondents (43.33%) had well as a source of irrigation, whereas 20.00 per cent of them had farm pond as a source of irrigation and 12.50 per cent of the them do not have any source of irrigation. While 6.66 per cent of the respondents have water canal as source of irrigation, followed by well + canal (5.83%), borewell (4.16%), well + borewell + farm pond (4.16%), farm pond+ well, (2.50%), well+ canal + borewell (0.83%).

As far as annual income of the respondents, Table 1 noted that majority of the respondent (75.00%) were medium level of annual income, while 15.00 per cent of respondents belongs to high level of income and only 10.00 percent of them having low level of annual income. It was observed from the Table 1 that similar percentage of the respondents i.e. 42.50 per cent were belongs to both low and high level of social participation, whereas 15.00 per cent of them were belongs to medium level of social participation.

Table 1 concluded that majority (74.16%) of respondents had medium level of extension contact, followed by high level (15.00%) and low level (10.83%) of extension contact. Data also revealed that majority (55.83%) of respondents had medium level of mass media exposure, followed by had high level (22.5%) and low level (21.66%) of mass media exposure. In case of utility of income, data concluded that majority (64.16%) of respondents had medium level of utility of income. Whereas 18.33 per cent of them had low mass media exposure and 17.50 per cent of them had high level utility of income.

## 2. Correlation between profile of the respondents and their awareness about IFS

The correlation between profile of the respondents with their awareness level of IFS is presented in Table 2.

**Table 2:** Correlation between profile of the respondents and their awareness about IFS (N=120)

Sr. No.	Characteristics	'r' value
1	Education	0.266*
2	Farming experience	0.202*
3	Family size	0.197*
4	Occupation	0.254*
5	Land holding	0.121 <sup>NS</sup>
6	Source of irrigation	0.268*
7	Annual income	0.347**
8	Social participation	0.247*
9	Extension contact	0.374**
10	Mass media exposure	0.241*
11	Utility of income	0.225*

\* - Significant at 5% level of probability

\*\* - Significant at 1 % level of probability

NS - Non-significant

Table 2 revealed that independent variables i.e. annual income and extension contact had highly positive and significant relationship with their awareness level of respondents about IFS. Whereas education, farming experience, family size, occupation, source of irrigation, social participation, mass media exposure, and utility of income of the respondent had positive and significant relationship with their awareness and only land holding had negative and non-significant relationship with their awareness of IFS.

## Conclusion

The study revealed that the majority of the respondent were educated up to secondary level of school, were belong to medium level of farming experience, annual income, majority, extension contact, mass media exposure, and utility of income. While majority of them having medium family size, having only farming occupation, semi-medium land holding and well as a source of irrigation. In case of correlation between profile of the respondents with their awareness about IFS, independent variables i.e. annual income and extension contact had highly positive and significant relationship with their awareness level of respondents about IFS. Whereas education, farming experience, family size, occupation, source of irrigation, social participation, mass media exposure, and utility of income of the respondent had positive and significant relationship with their awareness of IFS.

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