

RESEARCH ARTICLE

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## Factors affecting the knowledge extent about agro-forestry system

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**ABSTRACT :** The majority of respondents 74 per cent were found having medium level of knowledge, 13 per cent respondents who had low and high level of knowledge, respectively, the majority of all agro forestry systems of knowledge only silviculture system 54 per cent. Out of 20 variables with knowledge, 9 variables like education, caste, family size, housing pattern, annual income, transportation material, communication media, extension contact an attitude wore found highly significant. The study showed that majority of agro forestry farmers had dominated in medium category of knowledge.

**KEY WORDS :** Agro forestry, Farmers, Knowledge, Agro forestry farming practices

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### INTRODUCTION

Agro forestry as a new term was coined in 1977. The term agro forestry encompasses a diverse set of integrated land use system for a variety of purposes. Agro forestry also takes an inter disciplinary approach to land use requiring the combination of social, ecological and economic factors. Agro forestry trees have been raised on farm lands in India since earliest time. At the dawn of civilization, when man first took to settled cultivation, trees were cleared to have the way for agriculture. In fact,

patches of cultivated land were surrounded by dense forests. Gradually, as the population of human brings grow, more and more forest land was cleared. Many centuries later, vast patches of forest land had been cleared and were bring used to grow food crops. This was the time when people began to feel the need for planting trees on farm lands for meeting their requirements of fuel, fodder, timber, fruit and fibres. With these developments, the agro forestry practices occurred. These have been adopted traditionally by the people on agricultural land which are away from forests. At the National level, National Forestry Action Plan (NFAP) has been formulated with the technical co-operation of the Food and Agriculture Organization (FAO) of the United Nations which will facilitate full implementation of the National Forestry Policy, 1988. The same forestry and agro forestry principles were adopted at the earth summit at 'Rio-de-janerio' in 1992. However, there is immense scope for further integration of India's forest policy with sustainable

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management of the forest to meet the environment of socio-economic and cultural need of the present and future generation. Agro forestry is a source of various cottage and village industries such as cultivation, bee keeping, bide making, basket, rope making, sericulture etc. It can be developed in villages which will provide gainful employment for raising living standard of rural or local people. Similarly, agro forest based cottage industries such as lack; turpentine and resin (collected from chaperone trees) have tremendous growth potential. Three products are also used for varnish, printing scaling and gramophone records etc. Genuine produced from cinchona trees, microbalance (heretic) are also used in varies industries such as tanning, rugs and textile etc. The molasses and today are prepared from the juice of palm trees.

## EXPERIMENTAL METHODS

The study was conducted during 2011-2012 in order to study extent of knowledge of agro forestry farmers regarding improved agro forestry farming practices, at first selecting the block out of (11) community development block in Faizabad district. The Milkipur block was selected purposively for this study because of the convenience and nearer to Narendra Dev University of Agriculture and Technology, Kumarganj. Besides, there was having Agroforestry area, and the selection of villages, a list of all the villages in the block was prepared and ten villages were selected, Sarurpur, Kaidhana khurd, Sahulara, Keenhupur, Sidhauna, Shivrathpur, Balarmaw, Kuchera, Tendha khurd and Sariyanwa through random sampling techniques. At the last stage of sampling, the list of respondents were prepared separately for each sample village and thus, a total number of 100 agro forestry farmers from 10 sample villages were selected through proportionate random sampling technique on the basis of size of land holding. An interview schedule was prepared in the light of decided objectives and variables

undertaken, the knowledge extent about the cultivation of agro forestry system was measured by using the knowledge test developed by Ernest (1973). The knowledge extent was operationalized as the extent between recommended technology and actual known to the respondents at the time of investigation, farmers were individually interviewed. The questionnaire consisted close questions, all of which were translated into the local language. Appropriate statistics are used to draw inferences accordingly.

### Statistical analysis:

The obtained data was analyzed by statistical significant at  $P < 0.05$  level, S.E. and C.D. at 5 per cent level by the procedure given by (Panse and Sukhatame, 1962).

## EXPERIMENTAL RESULTS AND ANALYSIS

Table 1 is summarized from 37 questions asked to respondents. It reveals the fact that the majority of the respondent (74 %) was found possessing medium level of knowledge followed by 13 per cent respondent who had low and high level of knowledge, respectively. The mean of scores was found to be 43.554 with a range of minimum 5.4 and maximum 83.78. On the basis of above discussion it can be said that 74 per cent respondents had medium level of knowledge regarding agro forestry system.

It is clear from the data presented in the Table 2 that in case of knowledge of '8' systems of agro forestry system, the highest knowledge of 'Only Silviculture system' (54 %) ranked first, followed that 'Only Horticulture system' (41 %) were ranked second, 'Silvi.-Pastoral system' (32 %) were ranked third, 'Oleri.-Silviculture system' (28 %) were ranked fourth, 'Agri.-Horticulture system' (23 %) were ranked fifth, 'Agri.-Silviculture system' (20 %) were ranked sixth, 'Silviculture-Horticulture system' (17%) were ranked

Sr. No.	Categories (score)	Respondents	
		No.	Percentage
1.	Low (upto 29)	13	13.00
2.	Medium (30-58)	74	74.00
3.	High (59 and above)	13	13.00
Total		100	100.00

Mean = 43.554; S.D. = 14.416; Min. = 5.4; Max = 83.78.

seventh, 'Agri.- Silvi.- Pastoral system'(11%) were ranked eighth, respectively.

It reveals from Table 3 that the variables like education, caste, family size, housing pattern, annual income, transportation material, communication media, extension contact an attitude wore found to have highly significant and positive relationship with the extent of knowledge of the respondents, whereas the relationship with the family type, land holding, farm power and

household material was moderately significant and had positive correlation. The occupation and scientific orientation were found negatively in significant with respect to knowledge level of respondents. It can be noted that the variables, namely age, social participation, farm implements, economic motivation and adoption extent had no influence on knowledge of the respondents, while those which showed the positive and significant relationship had direct influence over knowledge extent.

**Table 2 : Agro forestry system wise knowledge extent of farmers**

Sr. No.	Particulars	Respondents	
		Per cent	Rank order
1.	Agri.-Silviculture system	20	VI
2.	Agri.-Horticulture system	23	V
3.	Silviculture.-Horticulture system	17	VII
4.	Silvi.-Pastoral system	32	III
5.	Agri.- Silvi.-Pastoral system	11	VIII
6.	Oleri.- Silviculture system	28	IV
7.	Only Horticulture system	41	II
8.	Only Silviculture system	54	I

**Table 3 : Correlation co-efficient (r) between different variables and extent of knowledge about agro forestry system**

(n=100)

Sr. No.	Variables	Correlation co-efficient(r)
1.	Age	0.07700
2.	Education	0.5292**
3.	Caste	0.4133**
4.	Family type	0.2458*
5.	Family size	0.3087**
6.	Housing pattern	0.2916**
7.	Land holding	0.2450*
8.	Annual income	0.5265**
9.	Social participation	0.1131
10.	Occupation	-0.1490
11.	Farm power	0.2120*
12.	Farm implements	0.0974
13.	House hold material	0.2088*
14.	Transportation material	0.2708**
15.	Communication media	0.3936**
16.	Economic motivation	0.1437
17.	Scientific orientation	-0.1660
18.	Extension contact	0.3890**
19.	Attitude	0.2623**
20.	Adoption extent	0.1230

\* and \*\* indicate significance of value at P=0.195 and P=0.254, respectively

It means that, the values of such variables if increased the extent of knowledge will also be increased. Shwetha *et al.* (2013) worked on the study on fuel-wood consumption pattern from coffee based agro-forestry systems in the Cauvery watershed region of Kodagu district.

### Conclusion :

The majority of the respondents (74 %) were observed in the medium category of knowledge extent about agro forestry system. The mean of scores of knowledge was found to be 43.554. All of 18 variables studied, the eleven variables namely education, caste, bailey size, housing pattern, annual income, transportation material communication media, extension contact and attitude had highly significant and positive correlation with the extent of knowledge. May be concluded that the variables which showed positive correlation ship had positive influence over knowledge, it mean that the value of these variables, if increased the knowledge extent well also be increased.

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