



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>

INTERNATIONAL JOURNAL  
OF ADVANCED RESEARCH

## RESEARCH ARTICLE

### A Study on Profile of Farmers in Utilization of Farm Equipments in Tamil Nadu

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#### Manuscript Info

##### Manuscript History:

Received: 11 June 2013  
Final Accepted: 24 June 2013  
Published Online: July 2013

##### Key words:

Farm equipments,  
Utilization, Profile.

#### Abstract

Agriculture is the most important sector of the Indian economy. Most of the farming in India is carried out on small land holdings. Agricultural equipments are not only capable of doing field operations of better quality. Consuming less time but also enable rapid adoption of other technological innovations. The use of farm equipments is strongly influenced by farm size, availability of machineries. The present study was conducted with a specific objective to study the profile characteristics of sugarcane and cotton farmers in using the farm equipments. The study brought out that as far as farm power possession was concerned medium level (46.67%) was found, Information processing behaviour was high (46.67%) among sugarcane farmers. As regard with scientific orientation cotton farmers had medium level of (53.34%) of scientific orientation, whereas medium level social participation (63.33%) was found among cotton farmers.

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#### Introduction

Indian economy depends mainly on agriculture, Mechanisation of farming with high quality seeds, soil and water management with appropriate technologies, precision and timeliness in important operations like sowing, weeding, harvesting and post harvest management are some of the critical interventions for achieving higher productivity. Agricultural labour input is becoming increasingly costlier on one side and on the other, the labour efficiency the turnover of risk and duration of working hours are deplorably deteriorating resulting in poor crop management increasing the cost of cultivation and reduced income to the farmers. Hence, the farm mechanization is the need of the hour. Mechanisation is to achieve field capacities that assure timeliness in seed bed preparation, and to bring precision in metering seed, fertilizer, pesticides, irrigation and harvesting which helps in increasing productivity with reduced losses, reduced unit cost of production and reduced drudgery to men and women who work in crop cultivation. It also helps in conserving the produce and by products, create agro-processing industries, adding value and generating

additional income and employment. The present study had been conducted to know the profile characteristics of sugarcane and cotton farmers in using farm equipments.

#### Material and Methods

Coimbatore district of Tamil Nadu was purposively selected for this study considering the progressiveness in agriculture. The sugarcane and cotton are one of the major crops grown in Coimbatore District, therefore these crops are selected for the study. Coimbatore district consists eight taluks viz., Annur, Coimbatore North, Coimbatore South, Mettupalayam, Kinathukadavu, Pollachi, Valparai and Suler. The Annur taluk is selected purposively which has the maximum area under sugarcane and cotton. The experiment was conducted in two villages and the total number of subjects was 120. Bund former, Cultivator, Disc plough, Heavy duty ridger, Irrigation channel former, Trencher, Sett cutter cum planter, Hand hoe, Spade, Power weeder, Drip, Sprinkler, Knap sac sprayer, Power sprayer, Sickle and Axe, Whole stalk harvester, Combined harvester, Special type of Hoe,

Power tiller, rotavator, Tractor rotavator were the list of Farm equipments used by sugarcane farmers. Disc plough, Cultivator, Ridger, Bund former, Cotton seed delinting equipment, Pelletizer, Drip, Sprinkler, Hand hoe, Long handle weeder, Power weeder, Knap sac sprayer, Power sprayer, Cotton picker, Stalk slasher were the list of Farm equipments used by cotton farmers. The data were collected with the help of a well structured interview schedule and the data were analysed using suitable statistical tools like Percentage analysis.

## Result and Discussion

An analysis of the profile of the respondents has to be done in order to get a clear-cut understanding about the farmers. In the present study, the relevant

information was collected and the results are presented as follows.

### Profile characteristics of sugarcane farmers in using the farm equipments

Majority of sugarcane respondents (40.00%) belonged to middle aged category. With regard to education majority of sugarcane growers (50.00%) had middle level of education. Majority of the sugarcane farmers had their occupation as farming alone and farm size of 2.5 - 5.0 acre. With high level of farming experience (53.33%) respectively. Regarding mass media exposure sugarcane farmers had high level (50.00%) with respect to Extension Agency contact they had high level of extension agency contact and medium level of innovativeness. As regard with scientific orientation was high (63.33%) in case of sugarcane farmers.

Characteristics of sugarcane farmers	Category	Per cent
Age	Young	23.34
	Middle	40.00
	Old	36.66
Educational status	Illiterate	1.33
	Primary	16.67
	Middle	50.00
	Secondary	6.67
	Collegiate	13.33
Occupational status	Farming alone	83.33
	Farming + business	16.67
	Farming + service	0.0
Farm size	Upto 2.5 acre	36.66
	2.5 to 5.0 acre	40.00
	Above 5 acres	23.34
Farming experience	Low	13.34
	Medium	33.33
	High	53.33
Mass media exposure	Low	13.33
	Medium	36.67
	High	50.00
Extension agency contact	Low	30.00
	Medium	20.00

	High	50.00
<b>Innovativeness</b>	Low	26.67
	Medium	60.00
	High	13.33
<b>Scientific orientation</b>	Low	6.67
	Medium	30.00
	High	63.33
<b>Social participation</b>	Low	13.30
	Medium	26.67
	High	60.00
<b>Economic motivation</b>	Low	30.00
	Medium	46.67
	High	23.33
<b>Information seeking behavior</b>	Low	23.33
	Medium	46.67
	High	30.00
<b>Farm power possession</b>	Low	30.00
	Medium	46.67
	High	23.33
<b>Information processing behaviour</b>	Low	30.00
	Medium	23.33
	High	46.67

**Table 1. Distribution of sugarcane farmers according to their characteristics in utilization of farm equipments.**

High level of social participation (60.00%) was noticed among sugarcane farmers. With respect to economic motivation medium level was found among the farmers. Information seeking behaviour was

(46.67%) in case of sugarcane farmers. As far as farm power possession was concerned. Medium level (46.67%) was found among sugarcane farmers.

Information processing behaviour was high (46.67%) among sugarcane farmers.

### Profile characteristics of cotton farmers in using the farm equipments

Majority of cotton respondents (46.67%) belonged to middle aged category. With regard to education majority of cotton growers had primary (36.66%) level of education. Majority of the cotton farmers had their occupation as farming alone and farm size of

2.5 - 5.0 acre. With high level of farming experience (46.67%) respectively. Regarding mass media exposure cotton farmers had high level (46.67%) with respect to Extension Agency contact had high level of extension agency contact and medium level of innovativeness. As regards scientific orientation cotton farmers had medium level of (53.34%) of scientific orientation. whereas medium level social participation (63.33%) was found among cotton farmers.

Characteristics of cotton farmers	Category	Per cent
Age	Young	20.00
	Middle	46.67
	Old	33.33
Educational status	Illiterate	10.00
	Primary	36.66
	Middle	30.00
	Secondary	16.67
	Collegiate	6.67
Occupational status	Farming alone	76.67
	Farming + business	23.33
	Farming + service	0.00
Farm size	Upto 2.5 acre	30.00
	2.5 to 5.0 acre	40.00
	Above 5 acres	30.00
Farming experience	Low	16.67
	Medium	36.66
	High	46.67
Mass media exposure	Low	23.33
	Medium	30.00
	High	46.67
Extension agency contact	Low	23.33
	Medium	16.67
	High	60.00
Innovativeness	Low	33.33
	Medium	40.00
	High	26.67
Scientific orientation	Low	20.00

	Medium	53.34
	High	26.66
<b>Social participation</b>	Low	20.00
	Medium	63.33
	High	16.67
<b>Economic motivation</b>	Low	6.67
	Medium	70.00
	High	23.33
<b>Information seeking behavior</b>	Low	10.00
	Medium	66.67
	High	23.33
<b>Farm power possession</b>	Low	70.00
	Medium	23.33
	High	6.67
<b>Information processing behaviour</b>	Low	26.67
	Medium	56.67
	High	16.66

**Table 2. Distribution of cotton farmers according to their characteristics in utilization of farm equipments**

With respect to economic motivation medium level was found among the farmers. Information seeking behaviour was (66.67%) with cotton farmers. As far as farm power possession was concerned low level (70.00%) was found among cotton farmers. Information processing behaviour was medium level (56.67%) in case of cotton farmers.

## Conclusion

From this study it was concluded that regarding mass media exposure sugarcane farmers had high level (50.00%) with respect to Extension Agency contact they had high level of extension agency contact and medium level of innovativeness, scientific orientation was high (63.33%) in case of sugarcane farmers, medium level social participation (63.33%) was found among cotton farmers. With respect to economic motivation medium level was found among the farmers. Information seeking behaviour was (66.67%) with cotton farmers. As far as farm power possession was concerned low level (70.00%) was found among cotton farmers. Information processing behaviour was medium level (56.67%) in case of cotton farmers. Mechanization of various farming

operation to achieve precision and timeliness even in marginal farms would be one of the major contributors for holistic development of agriculture for augmenting the farm income and rural employment. Energy is the key input for agricultural, industrial and socio-economical development of a nation. The energy in agriculture is required for field operations which facilitate crop production and processing besides indirect energy in terms of seeds, fertilizer, irrigation, and chemicals. The efficacy of agricultural inputs and natural resources seed, fertilizers, land, water has been increased through adoption of appropriate agricultural equipment.

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