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Adoption of Recommended Technologies by farmers in Coconut Crop

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A B S T R A C T

In India, coconut farming is inseparably embedded in the socio-historical culture as well as the ethnic identity. Coconut is also interlinked with socio-economic life of a large number of small and marginal farmers in peninsular India. Coconut is a source of food, beverage, medicine, natural fibre, fuel, wood and raw materials for units producing a variety of goods. It is estimated that about 12 million people in India are dependent on the coconut sector in areas of cultivation, processing and trading activities. Hence, The study was conducted in two blocks of Theni district (coconut), with a sample size of 40 respondents. The findings of the study revealed that the adoption of recommended technologies was found to be high in variety selection, fertilizer application, plant protection measures and low in seedling rate / hec, recommended spacing and weed management.

Introduction

Coconut tree (*Cocos nucifera*) is a member of the palm tree family (Arecaceae). The term "coconut" (or the archaic “coconut") can refer to the whole coconut palm, the seed, or the fruit, which botanically is a drupe, not a nut.

Coconut palm provides food security and livelihood to the large size of the population in the world particularly, in Asia Pacific Countries. Considering the versatile nature of the crop and the multi-uses of its products, the coconut palm is eulogized as Kalpavriksha (Tree of Heaven).

Coconut is one of the major plantation crops in India with a total cultivated area of 1975.81 thousand hectares with a production of 21,665 million nuts which makes India stand 3rd in the world. In productivity too, India ranks number one among other coconut growing countries in the world. Hence, a study was taken up to assess the adoption of recommended technologies by the coconut growers in coconut crop.

Materials and Methods

The study was taken in Theni district of Tamil Nadu. Under Theni district, 4 villages of Periyakulam and Kadamalaigundu blocks which had maximum area under coconut crop was chosen for the study.

A sample size of 40 coconut growers were chosen from each of 4 selected villages based on random sampling procedure. Rogers(1983) defined adoption as a decision to make full use of an innovation as the best course of action available.

The cultivation of tall variety was selected in order to study the extent of adoption based on discussion with Horticulture Scientists, Subject Matter Specialists and Horticulture Officers of Theni district, 12 major coconut cultivation practices along with sub-items were selected to study the extent of adoption of recommended technologies by coconut growers.

Findings and discussions

Practice wise adoption of recommended technologies by farmers in Coconut crop

Selection of Variety

Selection of Variety is very important for getting higher yield. It could be observed that adoption percentage of recommended variety was 82.5%. This finding is in line with the findings of Borate *et al.,* (2012).

Seedlings per hectare

57.5 % of the respondents adopted recommended seedling rate whereas 42.5 % of the respondents failed to adopt the recommended technology.

Preparation of main field

The mean adoption percentage under preparation of main field was 61.20%. Recommended number of ploughing is 75% and Recommended quantity of application of FYM was 47.5%.

Spacing

Nearly 55% of the respondents adopted the recommended spacing in coconut.

Fertilizer application

The mean adoption percentage of manuring was found to be 72.5%. Application of NPK was adopted by82.5%. Recommended time and quantity of application was adopted by 75 % and 60% of the farmers respectively. This finding is in line with the findings of Bennur *et al.,* (2013).

Weed management

The mean adoption percentage under weed management was found to be 32.5%. The recommended herbicide was found to be 35 %, recommended dose was 27.5% and time of application was 35%. The respondents followed intercropping for weed management of coconut and only few applying herbicides for controlling weeds.

Irrigation

The adoption percentage under irrigation in coconut field by coconut growers is about 72.5 per cent.

Intercropping

The adoption percent under intercropping is about 75 per cent. The reason for high adoption is due to the familiarization of intercropping practices by the coconut growers.

Table.1 Adoption of Recommended Technologies by Coconut farmers in Coconut

S.No	Technologies	Adopted	Percentage
1.	**Selection of Variety**	33	82.5
2.	**Seedlings per hectare**	23	57.5
3.	**Preparation of main field**		
	a) Recommended number of ploughing	30	75.0
	b) FYM	19	47.5
	Mean		**61.20**
4.	**Planting**	28	70.0
5.	**Spacing**	22	55.0
6.	**Fertilizer application**		
	a) Application of NPK	33	82.5
	b) Time of Application	30	75.0
	c) Quantity of application	24	60
	Mean		**72.5**
7.	**Weed Management**		
	a) Herbicide application	14	35
	b) Time of application	14	35
	c) Quantity of application	11	27.5
	Mean		**32.5**
8.	**Irrigation**		
	a) Irrigation Interval	29	72.5
	b) Drip Irrigation	9	22.5
	Mean		**47.5**
9.	**Intercropping**	30	75
10.	**Pruning**		
	Time of application	28	70
11.	**Plant protection**		
	1. Rhinoceros beetle		
	a) Recommended pesticide	33	95
	b) Time of application	32	80
	c) Quantity of application	32	80
	Mean		**85.0**
	2. Leaf rot		
	a) Recommended pesticide	33	82.5
	b) Time of application	25	62.5
	c) Quantity of application	24	60
	Mean		**68.33**
	Total Mean		**76.67**
12.	**Harvest**		
	a) Time of harvest	37	92.5

Pruning

The adoption of pruning practices was high (70 per cent).

Plant protection

The mean adoption percentage under plant protection in coconut was found to be 76.67%. The respondents' adoption of recommended pesticide for Rhinoceros beetle was about 85% and for leaf rot is 68.33%. The percentage of respondents adoption may be due awareness of recommended application of insecticides and fungicides.

Time of harvest:

The adoption percentage under time of harvest was to be 92.5.This showed that mostly farmers harvesting coconut at the right time. This might due to the fact that farmers believed the harvesting at correct time would influence the crop yield. With the respect to practice wise adoption to recommended technologies in coconut low adoption was found against the practice of seedling rate / hec, recommended spacing and weed management. Hence, it is suggested to provide more number of training to coconut growers in these subject matter areas.

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