



Study of Coconut Tree Climber Use Efficiency over Traditional Methods in Chitradurga District of Karnataka

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ABSTRACT

Coconut is one of the most important crops under rainfed conditions in marginal soil of Chitradurga districts. Majority of the coconut growers in the district were facing the problem of theft of fallen nuts and shortage of skilled labor for nut harvesting. The traditional method of harvesting the nuts using knife with bamboo sticks for dwarf trees and climbing the tall trees was quite risky and accident prone. To overcome this problem, ICAR-Krishi Vigyan Kendra, Chitradurga conducted training programmes to unemployed rural farm youths in collaboration with Coconut Development Board, Cochin. Total 80 farm youths were trained during 2012-13. With the conventional coconut climbing, a person could harvest about 8-25 nuts/tree while climbing the tree one had experienced body pain, muscles catch and lot of life risk with meager earnings of Rs.5,000-15,000/-year. After using the Coconut tree climber, annual income increased to Rs.20,000-60,000/-year and a person could climb more than 80-100 feet tall coconut tree without any life risk and harvesting efficiency increased to tune of 20-50 nuts/tree. This was encouraged many youths from surrounding villages to approach KVK to undergo training and choose coconut harvesting as an employment generation opportunity to meet their livelihood demand. Simultaneously, farmers were also benefitted by harvesting the nuts at right time and getting quality nuts also good price in the market.

Key Words: FOCT training, rural youths, employment generation, coconut tree climber.

INTRODUCTION

Coconut is one of the most important crops of developing countries. Coconut is considered as major livelihood crop in traditional growing districts like Tumkur, Hassan and Chitradurga of Karnataka. It is being cultivated in more than 56,000 ha (Anonymous, 2013) under rainfed condition in marginal soils of Hosadurga, Hiriyur and Holalkere taluks of Chitraduga Districts. Majority of the coconut growers in the district were facing the problems of shortage of skilled labor for nut harvesting also growers were losing good quality nuts and price in the market. The traditional method of harvesting the nuts using knife with bamboo sticks for dwarf trees and physically climbing the tall trees is quite risky and accident prone. Now days, tree climbers were a rarity in coconut growing states of Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Maharashtra and Goa very

few are taking as the traditional profession. The consistent supply of raw nuts for the market as well as for the processing sector could be ensured by regular harvesting schedule. In many areas, farmers were forced to take the help from floating laborers, who charge higher cost, despite not being familiar with the art of coconut climbing. The security of labor disrupts harvesting cycle's thus causing loss of income to the growers (Annual Report, 2012).

The objectives of the study were to impart training to a group of unemployed youths in developing their technical skills for harvesting of coconuts, to mitigate the problem of non availability of coconut tree climbers for coconut harvesting and plant protection activities and to provide technical support for sustainable production of coconut and create employment opportunity for unemployed rural youth.

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MATERIALS AND METHODS

Training programmes were conducted at IC-AR-Krishi Vigyan Kendra, Babbur Farm, Hiriyyur in collaboration with Coconut Development Board, Cochin during 2012-13. Total 80 farm youths were trained for safe climbing of coconut trees using coconut tree climber and improved coconut cultivation practices. Around 43 per cent of the farm youths were from Hiriyyur, 20 per cent from Chitradurga, 15 per cent from Holalkere, 8.75 per cent from Molakalmuru and 6.25 per cent from Hosadurga talukas of Chitradurga district, 2.5 per cent youth were from Tumkur and 6.75 per cent from Davanagere Districts also took part in the training programmes.

Mode of implementation

The selection of unemployed youths was made in joint collaboration with department of horticulture, CGS, NGO's, SHG's, Gram panchayat/Krishi Bhavan through media coverage likely by print and electronic media.

The criteria for selection of trainees: (CDB, 2012) Unemployed and healthy Youths; Free from any physical and mental disability and minimum education up to seventh standard. 10 trainees were

selected randomly from 80 trainees. The information pertaining to tree climber by traditional methods and advanced method of coconut tree climber was collected through pre-tested schedule by personnel interviews methods and same was collected from trainees after the training programme and expressed in per cent using following formula:

$$\text{Per cent increase in income} = \frac{\text{Income with Coconut tree climber} - \text{Income with modified methods by using bamboo stick}}{\text{Income with Coconut tree climber}} \times 100$$

RESULTS AND DISCUSSION

The traditional method of harvesting the nuts using knife with bamboo stick for dwarf trees and physically climbing the tall tress was quite risk and accident prone, to overcome these problems, advanced method of coconut tree climber was used. The results were expressed based on average of both traditional method and advanced method of coconut tree climber.

It was evident from Table 1 that among two methods of climbing, advanced method of coconut

Table 1: Number of nuts/tree harvested and income generation by different methods

Sr. No.	With traditional method		With Advanced method		Traditional method by using bamboo stick/ physical tree climbing (Rs '000/-yr)	Advanced method (in Rs. '000/-yr)	Per cent increase over traditional method
	No. of nuts/tree	No. of trees / day	No. of nuts/ tree	No. of trees / day			
1	8-9	15-18	40-50	65-70	8-10 (9.0)	30-35 (32.5)	72.3
2	8-10	20-25	30-35	60-65	8-10 (9.0)	20- 25 (22.5)	60.0
3	8-12	18-20	25-28	55-60	10-15 (12.5)	30-35 (32.5)	61.5
4	10-12	10-12	40-42	70-75	5-8 (7.0)	20- 25 (22.5)	68.9
5	10-12	20-25	20-25	75-80	10-15 (12.5)	35-40 (37.5)	66.6
6	10-12	20-25	30-50	70-80	12-15 (13.5)	55-60 (57.5)	76.5
7	10-15	30-35	40-45	70-75	10-12 (11.0)	30-35 (32.5)	66.2
8	15-20	15-20	25-30	50-60	8-10 (9.0)	30-32 (31.0)	70.9
9	15-20	18-20	25-30	60-65	12- 14 (13.0)	30-32 (31.0)	58.1
10	15-25	18-20	20-25	70-75	10-15 (12.5)	30-35 (32.5)	61.5

Coconut Tree Climber and Traditional Methods

tree climber harvested more number of nuts (20-50 nuts/tree) and more number of harvesting trees (50-80 trees/day) over traditional method by using bamboo stick/ physical tree climbing (8-25 nuts/tree) and lesser number of harvesting trees (10-25 trees/day). This was mainly due to use of advance method of climber leads easy to climb the tree up to 100-150 feet tall, without any life accidental risk by using coconut over other method of harvesting of coconuts, whereas, manually climbing the tall trees, experienced body pain, muscles catch and with lot of risk while climbing and very difficult to meet out financial needs of a family with meager earnings.

Climber using machine had harvested more number of nuts/tree as well as more number of harvesting trees/day even up to as many as tall of 100-150 feet compared to traditional method of harvesting of nuts over 58-76.5 per cent increase in income with an average of Rs.20,000-60,000/-year with advanced method and Rs.5,000-15,000/-year with traditional method (Table 1).

CONCLUSION

Coconut tree climber equipment is a boon for the coconut harvesters, since it has reduced

the drudgery in tree climbing and improved the climbing efficiency there by providing employment opportunity for rural youths, which has helped them to improve their livelihood. The coconut growers of district were benefited very much, since there was lack of skilled labour for harvesting nuts.

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