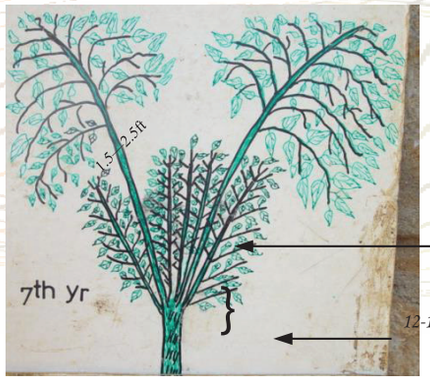

- Allow suckers to grow between 12-18 inches from the ground (The best time in most districts is between the months August and November)
- When they are 18 inches tall, select 4 well spaced ones
- Just before onset of rains, cut off one sucker leaving the best placed three to develop into heads for the new cycle
- One year before change of cycle, prune off all the remaining primaries on the inside of the main stems
- During the second and later cycle, cut off the centre head of the three old heads at a distance of 60 cm (24 inches) above the ground level

Change of cycle for capped system

- Allow secondary branches left on the primary branches on the outside of the two remaining heads to bear crop
- At the end of the year, after picking the crop, cut off the old heads at a slanting angle. (One old head may be left for one season at the growers discretion)

- For the capped system, the first step is to side prune the primary branches facing the eastern side to allow light to penetrate hence induce sucker growth (see cover photo)

5.2 Clean stumping

- The system involves removal of all heads at the same time leaving only a breather primary head. Canopy regeneration is faster, allows uniformity and is also cost effective as it eliminates the need for some farm operations such as agrochemicals spray
- Clean stumping should be done by blocks to avoid total loss in production
- The system is not recommended for the first change of cycle nor for unhealthy trees
- The cut should slant outwards

Change of cycle by clean stumping

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MANAGEMENT OF COFFEE CANOPY

1.0 INTRODUCTION

Canopy management is the process of optimizing bearing wood in order to concentrate energy for regular annual cropping through pruning, tree training, handling, de-suckering and change of cycle.

2.0 Pruning

2.1 Definition

This is the process through which selected branches are removed (cutoff) in order to concentrate growth to desired branches, therefore optimizing output, quality and the overall management of the tree.

2.2 Reasons for pruning - to

- Bring fresh vigour to the trees
- Maintain suitable crop leaf ratio
- Assist in insect pest and disease management
- Economise chemical use during spraying
- Open up the tree to light and air for better flowering and fruiting

3.0 Tree Training

There are two distinct systems of tree training as discussed below;

3.1 Uncapped tree system: features

- Also referred to as free growth or multiple stem system
- Commonly practised by smallholder farmers
- The crop is mainly carried on primary branches

Uncapped tree system

How to prune the free growth system

- Remove branches touching the ground
- Remove all secondary branches growth 9" from main stem
- After the 3rd main harvest, leave a bearing head of 4.5 to 5.5 feet depending on altitude (low to high)
- Remove any interlocking primary branches in the middle of the tree - one on alternate heads
- Cut off unwanted suckers with secateurs
- In high altitude, leave 4 non bearing secondary branches per primary branch. In low and medium altitudes, leave 6 and allow 2 to bear if the tree is strong
- Limit stems to 2 or 3 bearing heads

Advantages of uncapped System

- Operation can be carried out simply and quickly
- Provides an easy method of crop control and the alleviation of overbearing
- Rejuvenation by means of stem replacement is easily achieved
- Crop is carried mostly on primary branches giving strong and high quality beans

Disadvantages of uncapped system

- Tree breakages are common
- Picking and spraying are difficult on tall trees
- Rotation cycle too short in rapid growth areas
- Irregular growth of trees in a field

3.2 Capped tree system : features

- Has a fixed bearing head, hence the crop is borne on the secondary and tertiary branches
- Commonly practiced by estate farmers

Capped tree system

How to prune the Capped system

- Limit stems to 2 or 3 bearing heads
- Prune at a height not exceeding 6 feet (1.83 m)
- Remove interlocking primary branches on alternate heads
- Remove secondary branches growth 6" from the main stem to allow light to penetrate the centre of the tree
- Cut back secondary branches which have borne 2 crops most of their length and replace them with vigorous shoots. These shoots should be selected 6 months before the main pruning (i.e. during de-suckering)
- Leave 6 bearing secondary branches per primary branch which will flower in the long rains
- Allow 4 non bearing secondary branches per primary branch
- Cut back drooping primary branches to a horizontal plane (limit to approx. 2.5 feet from the main stem)

Advantages of capped system

- Allows easy picking and mechanised spraying at convenient and uniform height
- The tree provides ground shade at all times
- The system is readily usable under shade trees

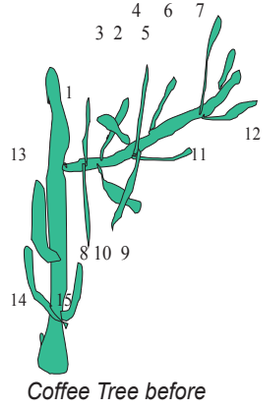
Disadvantages of capped system

- Pruning is complex and tedious
- Pruning requires skilled labour, is slow and expensive

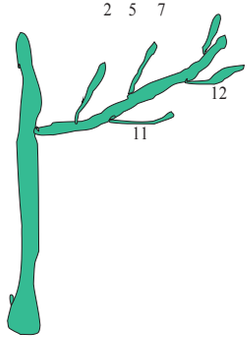
4.0 Handling and Desuckering

Is the removal of unwanted flush growth after rains.

- Remove unwanted growth which has developed since the main pruning including secondary within 22.8 cm (9 inches) of the main stem
- Remove the secondary branches which have matured since the main pruning (except those carrying a crop) and replace them with new young branches (4-6 per primary)
- Remove unwanted suckers unless the trees are ready for change of cycle (this can be done any time but at least 3 to 4 times per year)



Coffee Tree before de-suckering



Coffee tree after de-suckering

- Remove secondary branches growing up, down or inwards

5.0 Change Of Cycle

This is a process of rejuvenating new bearing heads.

5.1 Phased change of cycle

- Begin preparation for change of cycle 1.5 – 2 years before the heads are cut off
- For uncapped system, change of cycle should begin after 5 main harvests (crop years)
- Cut off inside branches of the main stems leaving a bearing head of about 45-75 cm (1.5 - 2.5 ft) on the inside - the heads bend outwards