

RUBBER PRODUCTION GUIDE

Establishment and Management of Rubber Plantation

Selection of site for rubber planting

1. On flat lands-should be well-drained, water table should be deeper 100 cm.
2. Gently sloping/undulating to rolling terrains.
3. Soil pH of 4.5-6.5 (ideal pH is 5.5)
4. Good soil aeration (30%)
5. Topsoil containing abundant organic matter.
6. Availability of transportation.
7. Availability of labor force.

Climatic Requirements

1. Minimum temperature is 20⁰C
2. Maximum temperature is 34⁰C
3. Average temperature is 25-28⁰C
4. 80% atmosphere humidity with moderate wind.
5. Rainfall of 2000 mm- evenly distributed throughout
6. Elevation 0-800 m. Above sea level

Land Preparation

1. In the area with big trees, or in second growth forest, clear the under growth first to facilitate cutting of bigger trees, then cut into logs the large trees and remove these from the site. Cut and heap the smaller trees found along the expected rows of rubber.
2. In cogonal areas, remove the cogon grass completely since it can hinder/stunt the growth of rubber.
3. In hilly areas where cultivation is difficult, remove the cogon along the rubber rows only.
4. In flat but cultivated areas, plow the area twice before laying out.
5. In hilly lands, prepare the land following contour lining and land terracing is highly recommended.

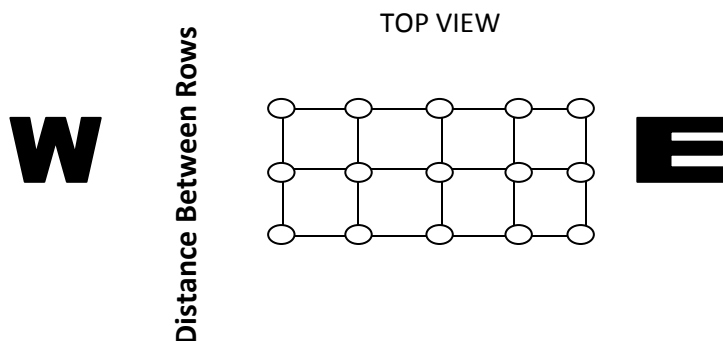
Planting Distance

The choice of planting distance, largely depend on the topography of the area and possibility of planting intercrops.

Topography	Distances (m)	No. of trees
Hilly (contour sloping)	9.0 x 2.5	444
Flat or undulating	8.0 x 2.5	500
	10.0 x 2.0	500
	8.0 x 3.0	416
	5.0 x 4.0	500
	6.0 x 3.0	555
Avenue system	7.0 x 3.0	476
	12.0 x 2.0	416

Lay-out in Flat Lands

Rows of rubber are usually set at east-west orientation to obtain maximum exposure to sunlight.



Steps:

1. The longest straight boundary line along the east-west orientation is made as convenient base line.
2. Measure and determine the 90° angle using the 3, 4, 5 meters on both ends of the base line.
3. Establish the distance between the rows and the rubber plants within the row following the line as indicated by the 90° .
4. Measure the distances between plants along the row in the succeeding row until the lay-out of the whole area is completed.
5. Determine the distances of rubber plants between the rows following the line as indicated by the 90° in the other end of the base line.

Lay-out on Hill Areas

Contour lining is highly recommended on hilly areas of more than 20° gradients by marking the planting in level lines across the slope. A line of average slope is selected dividing the slope, a frame is used.

After the lay-out the contour lines along the slope, cutting of the planting terrace is done. Terraces are necessary on hilly lands to prevent soil erosion and also for convenience in tapping. To establish a terrace, the soil is cut away 1.0 – 1.5 m back to the hill from the planting guide stick with a drop of 25-50 cm to the back of the terrace.

Establishing a Terrace by Cutting the Soil

Holing.

Size and shape of the hole depends largely on the soil condition and planting materials.

In fertile and soft soils, hole shall be 25-30 cm diameter and 40-45 deep. In poor and hard soils, bigger holes are required from 40-45 cm diameter to 50-60 cm deep.

If possible, holing must be done few days before planting.

Planting

A planting material of a second leaf storey with fully expanded, dark green and mature top whorl leaves will be used.

Planting will be done during rainy months Plant the budding according to sizes. Bigger plants should be planted first followed by smaller ones.

Steps in Planting

1. The bottom of the bag should be completely removed first before placing in the hole.
2. The planting material is carefully placed in the hole and with the sharp knife, cut the plastic bag vertically starting from the bottom going up.
3. Pull the plastic sleeve and backfill with fertile soil.
4. In compacting the backfilled soil, it should be in a slight manner to allow air circulation within the soil particles.

Fertilization Application

Fertilization Application Schedule

Period of Planting Amount (14-14-14) Placement from the

Frequency of

	g/tree/yr (split)	base (cm)	application 6 mos.
First year 125	30	62.	5 g/application
Second year	250	60	125 g/application
Third year	500	90	250 g/application
Fourth year	500	120	250g/application

Pruning

The desired results of pruning are the development of a smooth trunk without branches or large scars to a height of 2.0-2.5m. This would make possible un-interrupted tapping later on.

***Corrective Pruning:**

All pruning must be done to flush with the main stem. If not, new shoots may regenerate from the short snags left behind, necessitating pruning.

***Controlled Pruning:**

1. Prune branches where there are three whorls of branches. By pruning the branches off progressively the final pruning round is normally reached.
2. Prune branches with four flushes of leaves with branching at about 2.0 m. No branch induction required.
3. Prune branches with four flushes of leaves. No branching at 2.0m. Introduce branch induction.

Source: Establishment & Management of Rubber Plantation
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