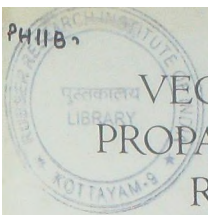
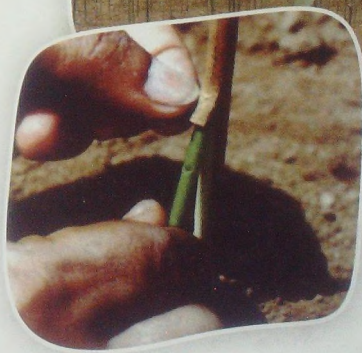


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VEGETATIVE PROPAGATION IN RUBBER



SEEDLING NURSERY



Seedling nursery is raised for rootstock seedlings

Requirements

- * Fertile and well drained soil
- * Land preparation should make the soil loose enough for good root respiration and lateral roots development
- * Appropriate spacing of 23 x 23 cm for green budding and 30 x 30 cm for brown budding
- * Fresh and heavy seeds collected in July – September, preferably from a polyclonal plantation
- * For uniform rootstock 50-70% early germinated seeds to be transplanted from germination bed to seedling nursery
- * Plant sprouted seeds without any damage to the rootlets
- * Proper agro-management practices
- * Thinning out of 30- 50% of weak seedlings
- * Root stock of about 2.5 cm girth at collar within 5-6 months for green budding; about 7.5 cm girth at collar within 10-18 months for brown budding
- * Mature top whorl of leaves will ensure proper peeling of bark
- * Utilization of best 70% seedlings for budding
- * Production of about 18,500-22,400 'budded stumps from an acre of land (46,000-56,000 per ha) when budding success is 80%

BUDWOOD NURSERY



Budwood nursery consists of source bushes of clones for multiplication

Requirements

- * Authentic planting material
- * Unshaded area with well drained soil
- * Proper agro-management according to the recommendations
- * Proper spacing (90 cm x 90 cm) for good growth of budwood shoots
- * Retain only 3-4 shoots on each plant
- * Rejuvenation of budwood by yearly cut back after monsoon (October – November)
- * Allow only terminal buds to grow
- * To avoid damage to the buds at the time of harvesting and transportation
- * Use of fresh bud wood and recommended type of buds
- * Budwood harvested for multiplication should be of 4-6 weeks growth for green budding; 10-18 months growth for brown budding
- * Mature top whorl of leaves will ensure proper peeling of buds



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GREEN BUDDING

Season: December - February

Vigorous seedlings with 2.5 cm girth planted in the nursery or polybags are used as stock seedlings.

Scale buds from bud shoots of 6-8 weeks are used.

Grafting procedure

- ❖ Clean the base of the root stocks.
- ❖ Make two vertical incisions 5 cm long and 1 cm apart, 2 cm above ground level.
- ❖ Make a horizontal cut to join the lower ends.
- ❖ A few minutes are allowed for cessation of latex flow
- ❖ Remove the bud patch with a section of the wood and carefully separate the bark from the wood without bending the bark.

Insert the budpatch inside the bark flap which is cut off leaving 1 cm at the top.

Tie the budpatch in position with a strip of transparent polythene.

200 g polythene of size 25 x 2 cm is found to be suitable for green budding.



BROWN BUDDING

Season: May - September

Carried out by grafting brown coloured buds taken from budwood of one year old growth onto healthy stock plants of 10 months or more growth

Grafting procedure

- ★ Clean the basal region of the stock plant.
- ★ Make 2 parallel vertical cuts 5 cm long and 1.5 cm apart, 2 cm above the ground level with a sharp budding knife.
- ★ Horizontal cuts are made connecting the lower and upper ends of these cuts.
- ★ Cut should be deep enough to reach the wood.
- ★ A little time is given for the latex to ooze out.
- ★ When the flow of the latex ceases, it is wiped off.
- ★ During this time budder can mark a few more stock in a similar manner.
- ★ For preparing the bud patch two parallel vertical cuts of 5 cm length are made on the two sides of the bud, 1.5 cm apart. Then 2 horizontal cuts are made connecting the lower and upper ends of these cut.
- ★ A little time is given for the latex to ooze out .
- ★ During this time, incisions are made around the neighboring buds of the same budwood.
- ★ When the oozing of latex stops, it is wiped off.
- ★ Remove bud patch from the budwood.
- ★ The core of the bud should be visible as a slight projection.
- ★ Trim the four sides without bending the bark.



- ★ Peel the cut panel on the stock plant and place the bud patch on the budding panel gently.
- ★ It should be placed in such a way that the bud is above the leaf scar.
- ★ Tie with polythene film starting from the bottom and move upwards in a close spiral. 300 gauge polythene of size 45 x 2.5 cm is found to be good.
- ★ Bandaging should be tight enough to keep the cambium tissue of budding panel and bud patch in intimate contact.



Examination for success after green/brown budding

- Examine the bud patch three weeks from grafting
- If the bud patch is green in colour, bud grafting is success.
- After 10 days the plants can be uprooted, stumped and transplanted as budded stumps in the polybags.

