Rubber budding & Vegetative propagation.

Dr. Foxworthy says that branches treated in this way

Potted 3 ringed branches (rings) in last sept 10/20

all branches have formed callus at the upper part.

16.8.20 1 from No 7. 2 from No 610.

16.8.20. 6 branches ringed on tree No 27.

1 branch " " " No 7

Tree No 27

① on 30th of July. I cut the top of branches to allow the lower dormant buds to develop.

On 13-8-20. Budded sixteen on 1½ ~~year~~ years seedlings

② Budded 25.8.20. patch budding & inverse T budding near soil. 25 Buds.

No success

③ 8.9.20 Budded. 1½ years seedlings —

10-9- 40 buds inverse T budding.

11-9-

2.12.20 Budded 8.P.M. — T. budding. 3 buds

10/3 of branches cut on 2.12.20 & Below lower buds developed.

22.12.20 - 15 buds, well developed. —

Patch — inverse (4) T —

B9.2/1

he want to raise Lazy Suppliers of
Lead of 27, and bidding should
be tried again. A is said to
say when the right conditions
are hit.

Avoid clopping with latex
Bleed the face close to the point
to be bridged, and bleed also the
bud.

Try again - : Dry.

29.6.29.

BA. 2/2

Jan. 28, 1926.

To,

Major Chipp,

D.of C.,

Dear Sir,

It is four months since I commenced the rubber-budding experiments,with out any definite results. During that period my experiments were occasionally inspected by Mr. Mathieu , I,however, give you an outline of the same,as far as I can.

Buds were observed to develop (1) in the wintering season ,(2) by cutting the tops of the branches(sub-herbaceous) (3) planting the stakes.

The first is not yet tried. The second is feasible;but buds fail to develop in the case of tree no. 610. The buds on trees nos. 7 and 27 could be obtained after about a month the tops were cut. The sub-herbaceous branches gave very few buds , for they dried from the top downwards for a certain length. The Buds obtained from this source seem to be the most desirable.

The third method is also tried,but the buds do not suit-able; for they cannot be taken out easily, the cell-sap being insufficient . Most of the stakes were found dry though planted in the earth humid place. None of the stakes rooted.

During the early stages of the exp. it was thought the humid atmosphere might hinder the union of the

two barks and give out shoots from the transplanted bud.
(Humid atmosphere)
This was accomplished by tying coir round the bud, and keeping it moist by watering the same.

Diary of the budding.

Sept. 16/19.

Tops cut to obtain buds.

Oct. 27, 19. buds from tree no. 27 and 27.
15 buds _____ all found dead after a ~~few~~ fortnight.

Nov. 18/, 19.

Out of 9 buds only two were observed to have outlived the the rest. There was the formation of the ~~xxx~~ callus but it was found that the buds did not unite and hence by the time the callus was formed , they were/ dead.

Dec. 17,,19.

5 buds in the nursery and 2 on the rubber stumps..
~~xxxxxxxxxxxxxxxxxxxxxxxxxx~~

budding
The stumps are still unsuitable for ~~budding~~/ for the circulation of sap is not up to the mark. The bark does not slip off readily and the wood is injured during the course of the operation.

The cut in the bark allows the latex to flow over the cambium and thus prevents the union of the two ~~xxx~~ Cambia. Ammonia may stop it , it being the least injurious and weakest of the Alkalis.

In the opening article of the xxxxxxxxxx Tropical Agriculturist, Nov. 1919, xxxxx the problem of Rubber budding and grafting is discussed. There it is xxxxxxxx referred that Exp. are being conducted in Malaya and Java. The information about the budding will be made available for me:

Jms Oddly.

G.D. Deshmukh

I Marcottages (23) were tried but I could not discover a even a small root on the upper healing surface.

5 Bankuses were tied on a the branches of coming out of a stump fallen by wind ~~=~~ No. 7. the same result.

II out of two saddle grafts - none took.

31/5/1920 15 Buds on the Stumps planted in Block No 13.

9/6/1920 = 22 buds. on Stumps as above Block No. 13

Rubber budding.

13/8/20

a fortnight ago, I got the tops of branches cut to allow the dormant buds to develop.

To-day budded ~~[illegible]~~ sixteen one and a half years seedlings —

Bud from tree No. 27 —

16/8/20 : Buds from 6 10.
6 Buds.

Day dull calm. Rain in the morning

Bunkused (marcottaged) ten plants ~~x~~ 1/2
Year seedlings watered with lime water

20 cuttings from ~~those~~ 1/2 Years seedlings were put in boxes to see whether they throw out roots & throw out buds.
— They all died & did not produce buds

16/8/20. 6 branches on tree no 37
were ringed & left on the tree to
form callus.

6 branches on tree no 610-

Dr. Foxworthy says that the branches
thus operated upon & left on the
tree, form callus soon & may
take when potted detached from
the parent & potted.

Potted 3 branches treated as
above 37 no (1) 610 no (2)

20 - 8 - 20

Top of plants cut &

22-8-20

Tape removed.

Buds dropping on 23/8/20

Some buds are still green & show
signs of union, as the ~~leaf~~ stalk remains
come out easily forming cork layer

None of the above operated upon lived

25-8-1920. 25 Budded (patch budding & budding near soil. Tree No. 27, Bud Sticks used.

No. of seedlings budded.

25, 26, 27/8 /20 30 (budded) miscellaneous
good growing [illegible]

17.1.21 Budded No 27 tree

Propagation of Rubber by Budding & Grafting

Miscellaneous seed yielding trees.

25. 26. 27. Aug. 20. 30 budded.

Grafting tape used; method of grafting used. patch & inverse T.

the plants bleeded according to Director's instructions. Buds green upto 31.8.20.

4.9.20. all buds dried. There does not seem to be any union between parts - ~~with~~ grafting tape, is formed better than g. wax.

Budded. inverse T. carefully Covered with coconut husk to keep dampness, near the operated part

all inverse T. budded.

Marcottage

In the nursery.

10 plants, 1½ years old were ringed 2-3 ft higher up from the ground.-

They are showing root development on the upper callus zone.

These marcottages were watered thrice twice with lime water & some lime was thrown over the marcottages.

Taking this into consideration —

16.9.20 On 610, I marcottage 2.

Of 610, seeds 62 sown in the nursery

of 27 only 5 — — — — —

Seed germination on 30.9.20 (Seed coat broken)

22-9-20. In the nursery, I cleft-grafted 5 4 Stumps - about 2-3" in circumference.

Bark graft is also tried - No. 27

29.9.20. Showing Signs of Taking.

Some showing progress. 6.10.20

25.9.20. No 610. cleft grafted. 2 germinated

Some Showing progress 6.10.20.

B 9.2/9

16.8.20: 25 Buds from 610.
6 branches on 610 were Ringed —

14-9-20 15 Budded inverse T. budding

23-9-20.
one bud is still green those put at the same time are dry & Mon.

B9.2/10

To secure fav results in grafting it is essential to secure fav stocks full of sap — To control sap in stocks, they are repeatedly cut back — to promote shoots, cutting off only sufficient of the previous season's wood to remove all buds that have started to grow — this operation is repeated Fibt every 8-10 days not only during grafting season but to insure better stands of grafts on these unmanipulated stocks (Ec. M. Vol 42 - No 8 - 1920 Jan)

(this method is useless in the case of Hevea, because on cutting the bk/n the bark sticks more and more to the wood & is very difficult to separate)

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