

Rubber budding & vegetative propagation.

Dr. Foxworthy says that branches treated in this way
may not Potted 3 ringed branched (ringed) in last ^{10/20} pft
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. 7.
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 -
e.g. 160 buds inverse T budding.

2.12.20 Budded 3.P.M. - T. budding - 3 buds
10/307 branches cut on 2.12.20 to let the
lower buds develop.

22.12.20 - 15 buds, well developed
Patch budding - (1) T -

we want to raise large supplies of
Lew of 27, and budding should
be tried again. It is said they
say when the right conditions
are hit.

Avoid chopping with latex
Kneed the tree close to the point
to be budded, and bleed also the
bus.

Try again - M
29.6.20

Jatt. 28, 1930.

10

Mr. Schmitz & Co

Major-chipper,

D. of G.

Try again with the same

Dear Sir,

It is four months since I commenced the rubber-budding experiments without any definite results. During that period my experiments were occasionally inspected by Mr. Matthieu

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

The first is not yet tried. The second is feasible; but buds ~~fail~~^{not} 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 ~~were~~ obtained from this source seem to be the most desirable.

The third method is also tried, but the birds do not seem suitable; for they cannot be taken out easily, the pullers being insufficient. Most of the stakes ~~skinned~~ were found dry, though planted in the most humid places. None of the stakes was rooted.

During the early stages of the exp. it was thought that
hundreds of thousands might have been taken off the ~~xxxxxx~~

two backs and give out sheets from the transplanted bud.

(Humid atmosphere)

This was accomplished by tying scar round the bud, and keeping it moist by watering the same.

Disey of the budding.

Sept. 16, 19.

Tops cut to obtain buds.

Oct. 27, 19. buds from tree no. #7 and 27.

15 buds _____ all found dead after a ~~few~~ fortnight.

Nov. 18, 19.

Out of 9 buds only two were observed to have survived the rest. There was the formation of the ~~new~~ 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 stump.

XXXXXX~~XXXXXX~~XXXXXX

budding.

The stump are still unsuitable for ~~budding~~ 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 prevent the union of the two ~~cambium~~ ^{cambia}. Ammonia may stop it, it being the least injurious and weakest of the Alkalies.

In the opening article of the ~~Agronomist~~ Tropical Agriculturalist, Nov. 1919, xxxx the problem of Rubber Budding and grafting is discussed. There it is ~~expressed~~ referred that Exp. are being conducted in Malaya and Java.

The information about the budding will be made available for me:

Yours obly.

G. B. Deacon M.A.

I. macrotapex (23) were tried but I did not discover even a small knot on the upper healing surface.

5 Branches were tried on a 8th branch of coming out of a 8th full weaver $\frac{2}{3}$ m. $\frac{7}{8}$. the same result.

II. out of two saddle grafts - none took.

3/5/1920. 15 buds on the stumps planted in Block no 13.

9/6/1920 - 22 buds. on stumps as above. Block no 13

Bubber budding.

13/8/20

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

To-day budded about sixteen one and a half year seedlings -

Buds from tree No. 27 -

14/8/20 : Buds from 6~~10~~:
6 Buds.

My dull calendar. Rain in the morning

B. mukunso (marcottaged) ^{last Friday}
Year seedlings watered with lime
water.

20 cuttings from ~~these~~ seedlings
were put in boxes to see whether
they threw out roots or them out buds.
- They all died or did not produce bud.

16/8/20. 6 branches on tree no 20
was stripped & left as the tree to
form callus.

6 branches on tree no 610 -

Dr. Coxworth says that the branches
thus separated upon a fifth and fourth branch
tree, form callus very soon & may
take when it has detached from
the parent & potted up.

Potted 3 branches treated as
above 10% 70° 80° 110°
20-8-20

Top of plants cut off

23-8-20

Tape removed

Bud dipping on 23/8/20

Some buds are still green & show
sign of union as the ^{stalk} leaf remains
come out easily forming cork layer

None of the above floated when lived

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



No of seedlings budded

= 25 (8-19/8-19c 30 (buds) ~~in 2nd row~~
~~approx 1000 buds~~

17-1-21 - Budded no 27 tree

Propagation of Rubber by Budding
• Grafting

Miscellaneous food yielding trees

25. 26. 27. Aug. - 20. 30 budded.
grafting tape used; method of grafting
used - patch & inverse T -

the plants bled according to Director's
instructions. Bud green up to 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
wax.

Budded ~~✓~~ inverse T ~~but~~ only
covered with coconut husk to keep dampness,
near the operated part

all inverse w. budded.

Marcottage
In the nursery.

10 plants, $1\frac{1}{2}$ 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
three times with lime water & some
lime was thrown over the marcottages.

Taking this into consideration -

16.9.20 On 610, I marcotted 2.
of 610, seeds 62 sown in the nursery
of 27 no. 27 - - -
Seed germinated on 30.9.20 (seed coat off)

22.9.20. In the nursery, I cleft grafted
5 4 stumps - about 2-3" in circumference.
Bark graft is also tried - no. 27

23.9.20. Grafting done at 10 a.m.

Same showing progress. 6.10.20

25.9.20. No. 610. cleft grafted - 2 years old.
Same showing progress 6.10.20.

16.8.20 25 buds from 610

6 branches on 610 were ringed —
one at diff times, plan W, gathered
14-19.20. Budworms were feeding
~~in a ~~dead~~ tree at first~~ now

23.9.20.

one bud is still green those put at
the same time are dry & rotten.

To secure fair results in grafting it is essential to secure good stocks full of sap. To control sap in stocks they are repeatedly cut back to smooth stumps, cutting off only sufficient of the previous seasons wood to remove all buds that have started to grow - this operation is repeated twice every 8-10 days not only to prolong grafting season but to insure better stand of grafts on than on the unmanipulated stocks (E.O.R. ^{vol} 42-^{No} 8-1920 Jan)

(This method is useless in the case of Hevea because in cutting the stock the bark sticks more and more to the wood making difficult the grafting.)
This is a good method.