

THE PROPAGATION OF SOME OF OUR NEW ZEALAND PLANTS
FROM CUTTINGS

Quite a goodly number of our New Zealand plants may be propagated from cuttings and for those prepared to try, they will be assured of something worth while in interest and enjoyment.

To be able ultimately to stand and survey a strong healthy specimen some twenty or thirty feet in height and say to oneself - I grew that from a cutting - is encouraging. Even some of our larger trees such as totara, pukatea, and puriri may be grown in this way and provided the usual factors necessary to cutting propagation are watched, there should be little difficulty experienced.

Site: Taking for granted that only normal garden facilities are available, we shall find a spot out in the garden where there is some good garden soil; well drained (but not so that it dries out badly) and where a little early morning sun is available. Even a spot under a tree is all right provided the drip from the tree in wet weather is not too severe.

Time to take Cuttings: For the softer wood types of which Colensoa, Hobe and Manuka are examples, we can begin in February, using short chubby tips from the laterals but not the main shoots. For the firmer wood and hard wood types, we begin in April or May, selecting carefully the best type of wood.

Wood Selection: is very important as it has a direct effect upon the selection of the medium in which we place our cuttings. Moreover, wrong condition of the cutting if taken too early, can account for its loss through the direct effect of open ground treatment which we are suggesting, as set over against glass frame conditions when a succulent state is more often selected. So we prefer in most instances to choose a firm cutting having more of a carbo-hydrate content than one with a strong nitrogenous condition which is oftentimes detrimental to root production in open ground conditions.

In selecting cutting wood, the short noded wood is better than the long internoded growth type; also material produced in semi-shade conditions will often give quicker results than that grown in full sun, the latter often being too ripe in condition

and taking longer to root and producing less roots.

How to make your cuttings: Remembering that plants with large leaf surfaces give off a correspondingly large amount of water, it is best to cut down the leaf area with a sharp knife. The usual length of cutting for open ground treatment is five to eight nodes, so that in short noded cuttings like Hebe you may have eight nodes with a tuft of five or six leaves at the top, whilst in rangiora or ngaio, only perhaps three or four nodes and three leaves reduced down two-thirds of their area of the stem cutting type are taken. Cuttings should be cut flat across the base at the node with a sharp knife. Plant material having hollow stems should be cut right at the node in the case of hardwooded subjects or taken earlier in a more half ripe condition before the hollow stem condition appears. The cuttings will be of two types,

- (a) tip cuttings
- (b) stem cuttings.

A small selection of natives which can be grown from cuttings (given below) will show what to select, after which one should be able to make one's own selections without much difficulty.

Rooting medium and how to plant: In this simple way we are only planting in the open garden. However, it is opportune perhaps to mention here that succulent cuttings require a fairly open mixture for rooting, e.g. clean river sand or pure river sand with gravel drainage for half ripe subjects where rootings will take place in three to four months. Sometimes we grow our cuttings in plant pots in a mixture of two parts soil, one part of leaf mould, and one part sand, with a layer of moss between the medium and the crocks in the bottom of the pot. These pots are then plunged out in the garden - or stood in a frame until rooted - when the plants may be more easily handled with a lesser amount of risk in losses. The more hardwood type of cutting needs to go into soil, as it will take a year to develop into anything like a decent plant capable of fending for itself in more open conditions.

When planting cuttings in open ground, take out a narrow trench three inches wide and four to six inches deep and place a liberal amount of clean river sand (not sea sand) in the trench and plant the cuttings up to over half their length, but not so that leaves are buried. Always plant your cuttings as soon as they are made; failure to do so results in a poor strike.

If, during the season, you find the area you have selected getting more sun than you consider wise for the cuttings, or if there is danger of frost, put a bracken fern canopy over the cutting bed - say about fifteen inches high - and this will give adequate protection in either case. Lastly, be sure to water your cuttings copiously after planting and frequently afterwards. The following March or April when the rainy season has begun, take a spade and cut down either side of the rows of cuttings so as to cut the roots. This is called wrenching and its effect is to stop further growth, firm up the present growth and greatly increase the rooting system of your plants, so that after five to six weeks when you come to transplant, you will have good strong roots on your plants with little risk of losing any of them.

Next month there will be a short article on raising native plants from seeds.

PLANT	TIME	TYPE	APPROX. LENGTH
Hoheria	May	Firm laterals with heel	4" - 6"
Hebe	Feb-July	Tips	4" - 6"
Clearia	May	Firm laterals and tips	6" - 8"
Senecio	May	" " " "	6" - 8"
Myrtus	April	Half ripe tips	4" - 6"
Ngao	May	Stem cuttings and firm tips	6" - 8" and 4" - 6"
Coprosma	"	Firm tips of laterals	4" - 6"
Rangiora	"	Stem cuttings, reduce leaf surface	6" - 8"
Weinmannia	"	Tips not easy always	4" - 6"
Aristolotelia	"	Stem cuttings	6" - 8"
Totara	March-May	Tips with side laterals	4" - 6"
Clematis	Feb-May	Stem cuttings, 3 - 4 nodes	4" - 6"
Manuka	Jan-Feb.	Firm tips 2" and 4" long	4" sand
Pohutukawa	May	Firm tips, adult foliage	6" - 8" sandy loam
Clianthus	March-May	Tips and stem cuttings	4" - 6"
Carmichaelia	May	Tips	4" - 6"
Colensoa	March	"	2" - 4" open
Ourisia	"	"	2" - 4" "
Pukatea	May	"	4" - 6"
Rhabdothamnus	March-June	Tips, best in pot	2" - 4"
Pomaderris			
apetala	May	Stem	6" - 8"
Puriri	May	Stem, young wood	6" - 8"
Griselinia	May	Tips	4" - 6"

The following account of the excursion to Walker's Bush, Feb. 28th, 1948, has been kindly supplied by Miss Joan Dingley.

"On Saturday, 28th Feb., about 25 members of the society visited Walker's Bush. This small reserve at the base of Mountain Rd., Henderson, was purchased for the city through the efforts of our society during the closing months of 1940 in order to save three large kauri trees, of which two were eight and one nine feet in diameter, from the bushman's axe. The trees are set in a delightful piece of bush surrounding a small stream, the banks of which are densely clad in the small tree fern *Wheki* (*Dicksonia squarrosa*). The trees are a few hundred yards from the road and a track to them is kept cleared by the Centennial Park board, who supervise this area.

After having lunch on the property of our president, Miss M. Crookes, Miss Crookes guided the party across the road into the reserve and here everyone spent an enjoyable afternoon admiring the kauri trees, studying the filmy ferns on the tree fern trunks and botanising generally. On our way back to Miss Crookes' cottage we met Mr. Cooper, the newly appointed museum botanist. He had inadvertently missed the bus, but so great was his enthusiasm to attend the excursion that he had walked from New Lynn. A hurried cup of tea before catching the Valley Road bus back to town concluded the excursion. The Society is indebted to Miss Crookes for her hospitality and her able leadership.

During the excursion the matter as to whether the two kauri trees on the track needed any protection was discussed. The general feeling was that at present the trees were safe but sometime in the future the tree near the stream might need some protection to keep the bank from falling away from its roots."

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NOTES BY THE WAY

We have just received the following interesting communication from Mr. J.R. Cameron, of 28 Speight Rd., Kōhi:

"Just a note re the Carob Bean tree. (*Caratonia siliqua*). I was unaware until lately that there were more than two mature trees in Auckland, one in Domain Road (a male) and one in Park Road