

GRASSES AND LIKE PLANTS

* <i>Agrostis tenuis</i>	<i>Phormium tenax</i>
* <i>Anthoxanthum odoratum</i>	<i>Poa laevis</i>
<i>Arthropodium candidum</i>	<i>Pterostylis banksii</i>
<i>Astelia fragrans</i>	<i>Pterostylis</i> sp.
<i>Juncus distegus</i>	<i>Uncinia uncinata</i>
<i>Juncus gregiflorus</i>	<i>Uncinia scabra</i>
<i>Microlaena polynoda</i>	

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- Given, D.R. 1976: A register of rare and endangered indigenous plants in New Zealand. New Zealand Journal of Botany 14: 135-149.
- Kelly, G.C. 1972: Scenic Reserves of Canterbury. D.S.I.R. Biological Survey of Reserves Report 2, 390pp.
- Molloy, B.P.J. 1976: Floristic notes. Canterbury Botanical Society Journal 9: 34-37.
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PROPAGATION OF NATIVE CLEMATIS

Joe Cartman

The native Clematis have a considerable popularity with our members, several of whom have plants growing in their gardens.

The easiest method of propagation is seed. This method is described in Journal No. 13.

The major disadvantages are the length of time between sowing and flowering, usually several years and the sex and quality of the plants is also unknown until flowering.

With vegetative propagation a plant with the desired features can be found and then propagated.

Points to look for are:-

(a) Sex of plant.

(b) Colour of flower.

A close inspection can reveal subtle differences in colour in some of our Clematis - C. foetida can be quite yellow in some plants. C. paniculata can have very pronounced purple stamens.

(c) Quality of the Plant.

This can depend on several things but the **general** look of the plant, the profusion or lack of flowers, **flower** size, leaf form and colour can usually be assessed at a glance. Does the plant you find look average or does it look a bit better than the others nearby?

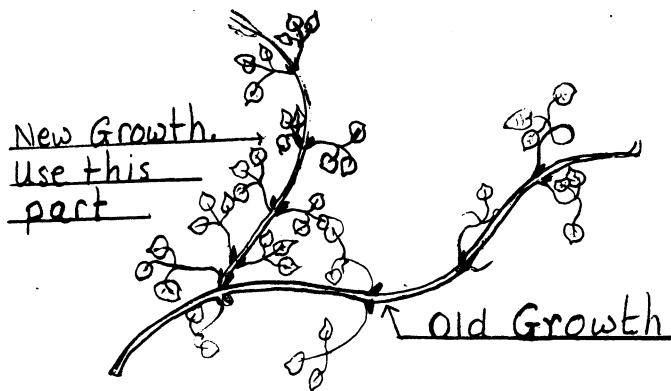
(d) Scent.

This is very much a personal thing. I find some of our Clematis smell delightful. My first encounter with C. australis was as a result of the sweet honey and lemon smell in the still warm air. I have since found C. australis with a strong cinnamon smell. C. marata also has a cinnamon smell and C. foetida a strong honey smell.

Take time when choosing your plant as a really outstanding form may come to light out of dozens of average plants. If possible find your plant in flower and then return a month or so later to take cuttings. This will give the plant time to make considerable new growth. If this is impossible a few cuttings can usually be found at flowering time.

Selection of cutting material.

Select this years growth, preferably after it has at least five pairs of leaves, this will ensure a piece of stem ripe enough to provide two or three cuttings. The young soft tip should be discarded. Later in the season growths will be long enough to provide up to ten cuttings.

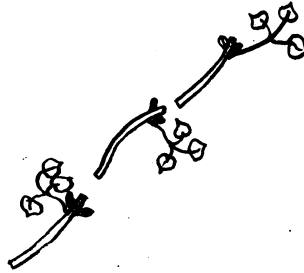


Making the Cuttings.

Cuttings can be "nodal" or "inter-nodal". The "inter-nodal" cuttings enable more cuttings to be made from a given length of stem. Nodal cuttings are made by making a cut 2mm below a leaf joint (Node) and making a second cut 2mm above a node 4-6cm up the stem. The cutting will have two or maybe three nodes. Remove the leaves from the lower nodes and one of the top pair of leaves. Several cuttings can be made from one length of stem.



Nodal Cutting



Inter-Nodal Cutting

Inter-nodal cuttings are made by cutting the stem 2mm above a node and again 2mm above the next node and so on. This gives a cutting with a node at the top and a clear piece of stem 2-4cm long without a node at the bottom. Remove one of the two leaves to reduce transpiration from the cutting. This method allows the maximum use to be made of the available material.

Dip the cuttings in a solution of Benlate or Captan to reduce the chance of fungal attack, then dip into a hormone powder, Seradix 3 to assist root formation. Insert the cuttings in a mixture of equal parts peat and sand and treat as described in Journal 13 page 33-34.

It is a good idea to use small pots with three or four cuttings per pot and when they are growing pot the whole potfull into a larger pot or plant out, intact. Clematis resent root disturbance. If several plants are wanted take several pots of cuttings.

The success rate varies with the species. Clematis australis, C. petriei, C. marata and female C. paniculata are relatively easy to grow from cuttings. C. foetida is quite difficult and C. quadribacteolata is more prone to fungal attack than the others. The success rate improves with cuttings taken later in the year.

C. afooliata has proved impossible to grow from cuttings. If anyone has grown it from cuttings I would like to hear about it.

In some species one sex tends to propagate easier than the other. With C. australis the male is the easy one, the female tends to be slow to take root and often fails to grow away afterwards. With C. paniculata the female is the easiest. This has been very noticeable in one instance where fifteen male and fifteen female cuttings were taken in Spring 1979. All were given the same treatment - I now have eleven female plants and no male plants from this propagation. Two male cuttings took root but died after potting. C. marata also shows this to a small extent, the male being easier.

### Planting.

All of our Clematis species tend to inhabit well drained places, usually hillsides or river terraces. There may be abundant moisture but this is never stagnant. The plants are usually to be found growing among bushes and trees or scrambling amongst rocks. This should provide us with clues to the plants needs. A cool root run, a well drained site and a position where the plant can climb and flower in the sun.

The plant should be planted in such a way that the roots will not be standing in water for any length of time. A small bed, raised 10 or 15cm above the surrounding soil is enough. The soil should be worked with sand and peat or leafmould added in generous amounts.

Site the plant where the roots will be out of direct sun, the south east side of a shrub is ideal. If the soil around the roots becomes hot and dry the plant will suffer.

The plant should be able to climb into the sun where it will flower at its best. They are at their best climbing through shrubs.

### Pests and Diseases.

The main diseases are the various fungal organisms that attack the young cuttings. Clean pots and sterilized composts usually eliminate these problems. A spray every three weeks with Captan or Thiram can be used as a preventative. Once the fungus is present nothing will stop it killing the infected cutting.

Slugs are fond of new growths and slug bait should be used.

Caterpillars of various types are a major pest. Leaf rollers damage the growing points and a large brown caterpillar eats the stems through and kills the upper portions of the plant. Porina eats the roots and stems at soil level and various others defoliate the plants. A search with a torch about an hour after sunset will locate the culprits and a spray every three weeks with Carbaryl will eliminate them.

Stems eaten in autumn and winter will mean fewer flowers in the Spring. Do not underestimate the caterpillars, they can eat off a large plant in a few nights.

Most of our fine Clematis are easy to grow once their needs are understood.

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### GILL - FUNGI

We are indebted to Dr. Greta Cone for supplying the Guide to Common Genera of Gill-Fungi. This Guide will be very useful to students of Fungi.