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A Fast and Reliable Method of Plant Propagation®

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HOW I DISCOVERED THIS METHOD

I often trim the trays of plants in 2-inch tubes and I noticed that some of the trimmings fell on top of the potting mix in the tubes and if I left them there they took root quite quickly. So I decided to duplicate the process in the igloo environment and I was amazed to see how quickly the clippings took root in the controlled environment. So I started trialling various sorts of plants and was very pleased to see how well this worked. About a year after I had started trialling this I was very interested to read Ian Gordon's article (2001) in the Australian Horticulture magazine and while his methods were similar, his method required a much more sophisticated setup than I had available. The beauty of this method is that it requires very little cost and labour to set it up and means that large numbers of plants can be propagated very quickly and cheaply. It is not applicable for all plants but I think I can demonstrate that it certainly works very well with a great number of plants.

HISTORICAL USE OF A SIMILAR METHOD BUT WITH A DIFFERENT APPLICATION

See Australian Horticulture June 2001 article *Using Ultra Soft Tips For Cutting Propagation* by Ian Gordon. I haven't found any other references similar so if you have been using this for 50 years — don't hassle me!

WHY THIS METHOD WORKS

- Plant hormones (auxins) are concentrated in area of the plant where active cell division is happening.

- Hormones (auxins) affect plants in a wide range of ways. They influence cell enlargement and elongation, root initiation, phototropism, geotropism, fruit set and growth, seed germination, apical dominance, and leaf drop. The concentrated amount of auxins in the soft tips ensure fast, even rooting of the tips and the fast growth of the tips when they are potted up.
- So I have coined the phrase “Auxinated Tip Clips” to describe the reason why this method works and why it works so quickly.

HOW TO USE THIS METHOD

- 1) Prepare the tray containing the seed-raising mix.
- 2) Cut the tips from the selected plants.
- 3) Spread the tips across the surface of the tray — much like spreading lawn clippings.
- 4) Water the clips in. This is important because it puts the cuttings more in touch with the soil.
- 5) Place in an igloo in some shade and where water won't drip on it.
- 6) Water when necessary and pot up when the cuttings are rooted. This is usually in about 1 to 2 weeks. The tips often will let you know when they are ready as the growing tips start to stand upright.
- 7) Larger-leaf taxa may do better if just stuck into the seed-raising mix as the leaves may tend to rot if they are left in contact with the surface of the soil. I have tried these tips in different media, e.g., propagating sand and peat moss and also perlite and peat moss and the plants have grown well in these media also but I haven't trialled them extensively! Initially I used the seed-raising mix because I was trying to duplicate the conditions on the top of the tubes.

VARIETIES TRIALLED AND SUCCESSFULLY GROWN

To date I have used this method successfully on 15 plant families with often more than one type from each family. Those I have trialled have been from:

Asteraceae/Compositae	<i>Rhodanthe anthemoides</i> , <i>Felicia amelloides</i> , <i>Erigeron karvinskianus</i>
Brassicaceae	<i>Iberis sempervirens</i>
Buxaceae	<i>Buxus sempervirens</i>
Caprifoliaceae	<i>Lonicera nitida</i>
Caryophyllaceae	<i>Arenaria montana</i>
Commelinaceae	<i>Heeria elegans</i>
Convolvulaceae	<i>Convolvulus sabatius</i>
Lythraceae	<i>Cuphea hyssopifolia</i>
Malvaceae	<i>Anisodonteia capensis</i> , <i>Abutilon</i> hybrids (syn. <i>A. × hybridum</i>)
Melastomataceae	<i>Centradenia</i>
Oleaceae	<i>Ligustrum undulatum</i>
Onagraceae	<i>Fuchsia</i> sp.
Pittosporaceae	<i>Pittosporum</i> (needs more work)
Rosaceae	<i>Photinia</i> (needs more work), <i>Rosa</i>
Srophulariaceae	<i>Diascia</i> sp., <i>Veronica</i> sp., <i>Penstemon</i> sp.

Most of these have rooted in 1 to 3 weeks (depending on the time of year) and most have had between a 95% to 100% strike rates.

When the weather is cool I have found that if I put the above plants on the hotbed it can speed up the strike time considerably.

This list of plants is not exhaustive and there are many other plants that I am sure would do equally as well as the above and it just means a bit more trialling. As yet I have only trialled two Australian native plants, so that is a large area to explore.

LITERATURE CITED

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Propagation of *Camellia sinensis* var. *sayamakaori*®

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INTRODUCTION

Camellia sinensis var. *sayamakaori* is one of the cultivars used in Japan to produce green tea. The variety *Sayamakaori* is one of the cultivars imported into Tasmania about 10 or 12 years ago. In our experimental trials with three of these cultivars, we have found this one the best to grow in our area.

PROPAGATION

Propagation of *Camellia sinensis* var. *sayamakaori*. The cuttings are collected from the new growth of plants propagated the previous year.

These plants are grown in 140-mm pots on wire mesh benches 600 mm high under 60% shade cloth; they are watered and fertilised as required.

Pests are not a major problem. The only pests we have are aphids that in the spring attack the new shoots resulting in deformed leaves and the light brown apple moth, which is a leaf roller and a native of Australia, so can be found in most areas where green tea would grow.

Cuttings of *C. sinensis* var. *sayamakaori* may be taken at any time, but best results are achieved during the warmer months of the year. We have had most success between December and March in the southern hemisphere. Trials of cuttings from October/November are successful if very soft tips are removed and only semi-hard material is used.

Cuttings are collected early in the morning, before 10:00 AM if possible, being firm mature growth terminal shoots. These are then taken to the production area to be processed into cuttings.

The cuttings are prepared in a clean and cool area to assure they are kept in their best condition. Cuttings should be about 100 to 150 mm in length. These are cut below a node, wounded on one side, and the lower leaf removed. If soft tip cuttings are used wounding is not required and material is usually less than 100 mm in length.

It is important that secateurs are kept sharp and sterile during all processing of cuttings. We use Felco type secateurs to gather the material and scissor type to process the cuttings.