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Experiences With Simple Propagation on a New Nursery®

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INTRODUCTION

Choice Plants was set up from scratch 5 years ago with a third-hand polythene tunnel and very old Portakabin. The aim of the nursery is to provide good quality shrubs, with some grasses, to local garden centres and landscapers. Capital for expansion projects has been raised entirely through the nursery's profits and is therefore always tight. In addition the nursery has to rely mainly on unskilled labour. This has meant that although I have a love of propagating and would always want to see some happening on the nursery, I have had to carefully evaluate why, what, and how we propagate. The purpose of this paper is to show that plant propagation is possible and viable with the most basic equipment and limited resources.

EVALUATING THE NEED TO PROPAGATE

With the cost of liners and plugs being quite competitive and availability of taxa getting better all the time, there has to be some evaluation about why to propagate on the nursery. I also have found that my cost is not just a matter of successful rooting — it's also the work involved in looking after the plants once they have rooted and moving them on to the next stage. I also have to evaluate whether it is really worthwhile propagating a subject that we only sell in small numbers.

For example, it is worthwhile for us to propagate *Senecio*, because it is easy to root, we have plenty of stock material, and we sell a lot of them. But although some of the less popular *Cistus* are also easy to root, we do not have very much stock material and we sell only about 50 plants in a year. As a general rule I consider that numbers of less than 150 are not worth propagating, aiming for a success rate at the final potting stage of at least 100.

Here are some reasons that I still continue to propagate:

Interest. Learning about propagation helps the staff to understand more about plants and provides some variety in their work.

Use of Labour at Quiet Times. In the autumn and winter we have some lulls and it is useful to try and use labour to propagate.

To Enable Us to Grow Hard-to-Source Plants. We lack facilities to propagate some of the more difficult-to-root subjects but we can propagate plants such as *Fuchsia magellanica* 'Alba' and 'Versicolour' and some grasses, especially the larger cultivars, such as *Miscanthus*, which we find difficult to obtain.

PROPAGATION METHODS

Compost. Originally we mixed our own using peat and perlite or peat and Grodan Rockwool, mixed in a very simple way by spreading a large sheet of thick plastic on the ground and rolling the compost back and forth and then decanting into plastic sacks. Although this worked well, the mix varied unless the operation was well supervised. For convenience we now buy a proprietary bagged ready-mixed propagating compost, to which we add a small amount of Sincrocell fertiliser as a base feed. However, we do also sometimes propagate grasses and some other plants by division and for these we use our normal potting compost. Plants propagated this way are potted either into liner pots or straight into 2-litre pots.

Facilities. These have been chosen for low cost and ease of installation and management. Cuttings are rooted under white plastic propagation film and low tunnels, both outside and within walk-in tunnels.

White Propagation Film. Cuttings are struck, placed in the main tunnels, and then covered with the white plastic. We find this has worked well, particularly in late summer or early autumn. We did have problems with overheating of cuttings in the spring and summer, although this could probably be solved with more shading.

Low Tunnels. The low tunnels are approximately 1.5 m wide. We originally set these up outside. The ground was treated with herbicide and covered with a layer of woven membrane before the low tunnels were assembled. In two of the four tunnels we installed some foil heat blankets which were placed on polystyrene sheets and covered by capillary matting with porous hosing. The tunnels are clad with polythene and the some shade material. Although we have had reasonable success with rooting, aftercare was a problem because of the difficulty working in the tunnels and the discomfort of kneeling on open ground while working. For this reason we moved the tunnels inside the walk-in tunnels. Experience made us abandon the use of the foil heat blankets, which caused problems of drying out and fungal infestations.

Inside the walk-in tunnels the low tunnels are set up and covered with plastic. This gives a warm, humid environment for the cuttings as well as an easy area for the staff to work in. If we began propagating in spring and early summer we would probably need to put some shade material over the low tunnels to try and keep the cuttings cool. We may also look at alternative coverings on the walk-in tunnels when the time comes to re-clad.

Containers. Owing to lack of space most of our propagating is done in seed trays, with the rooted cuttings being moved on into P7 and P9 liners. I like the idea of plug trays and direct striking into liners to try and save a potting procedure. We have done both of these. It has been particularly useful to do some of the evergreens by direct striking two or three cuttings into a liner pot in January.

Propagation Material. We keep very few stock plants. Most of our material comes from the liners and plants we have in stock, either from trimmings of mature plants when cutting back or from liners when potting, subject to time constraints. We also hold back some grasses that have been potted. My own garden is also a source of material. My only criteria are that the material should be young and clean. Training has helped inexperienced staff gain a feel of what is good propagating material but tight management after collection has been essential to control the quality and amount of material that gets struck. People seem to hate to throw anything away.

Timing. We do not live in an ideal world, so propagating gets done when we have time to spare, which usually means autumn and winter. Spring is generally too busy, and if we propagate then it is likely that the onward care may not happen during our peak periods. Spring propagation is therefore limited to the small number of opportunities which occur, for example, if we have material from liner trimming.

PLANTS PROPAGATED

We use Seradix rooting compound on all but the very easy plants, and water in with Pro Plant.

- ***Brachyglottis (Senecio)*.** Sourced from garden material. Usually propagated straight into liner pots.
- ***Ceanothus thyrsiflorus var. repens*.** We sell so much of this it makes it worthwhile, for other cultivars we would need to have a better source of material, but in any case we sell fewer of the other species or cultivars.
- ***Cistus* ‘Silver Pink’, *C.* ‘Grayswood Pink’, *C.* × *hybridus* (syn. *C.* × *corbariensis*), *C.* × *purpureus*.** These *Cistus* taxa are all propagated easily in autumn.
- ***Cotoneaster dammeri* ‘Coral Beauty’.** We propagate from liner trimmings and nursery stock.
- ***Euonymus*.** All the evergreen types such as ‘Emerald ‘n Gold’, ‘Emerald Gaiety’, and *E. japonica* ‘Aureopictus’ are usually propagated from liner trimmings but also from nursery stock
- ***Fuchsia magellanica* ‘Alba’ and ‘Versicolor’ and *F.* ‘Riccartonii’.** Propagated from nursery stock. We have not propagated other fuchsias as they are so cheap and readily available.
- ***Hebe*.** We concentrate on the smaller-leaved types; have given up propagating the large-leaved ones because they seem prone to mildew problems.
- ***Hedera*.** We propagate using internodal cuttings from nursery stock, direct-sticking three cuttings into a liner pot.
- ***Ligustrum ovalifolium* ‘Aureum’.** Propagated from nursery stock.
- ***Lonicera*.** Climbers are propagated from nursery stock; *L. pileata* is also propagated from liner trimmings and is usefully direct stuck into liner pots.
- ***Pachysandra*.** Usually split straight into liners.
- ***Philadelphus* and *Salix*.** Both subjects propagated using hardwood cuttings, in small bundles in 3-litre pots.

GROWING ON

This has been perhaps the most difficult area to manage. The growing-on area is not in the same place as the main nursery building and site, so it is a case of sending people to look after the area, rather than being able to monitor it because staff are walking past it all the time.

While staff find excitement in the propagation stage, close management is needed to ensure this enthusiasm is transferred to the next stages and to understand the importance of trimming back to produce a well branched liner; management of pests and diseases; and general care of plants right through the liner stage and to final potting.