

## SOME ASPECTS OF GREVILLEA PROPAGATION

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Our nursery is close to the coast, approximately 5-6 miles inland at Northgate, which is a northeastern suburb of Brisbane. We are approximately 12' above sea level. We enjoy a mild climate, frosts in winter are rare and usually not severe, and summers are usually tempered with afternoon sea breezes. For those who like figures, our winter temperatures are usually from 10° to 20°C and summer from 18° to 30°C so we have an ideal climate which enables us to use very simple propagating facilities. We use very little glass.

Most of our propagation is done on raised benches which are covered with polythene; these are in the form of roll-up shades which, in turn, are covered by 30 % shade approximately 7' from ground level. At present we use perlite and peat moss as the medium; this is cleaned with air-cooled steam. For grevilleas, cutting material is inserted directly in plastic tubes, smaller cuttings going into 1½" and the larger into 2".

At this stage I would like to trace a little history so that you can appreciate why we have arrived at this method.

About 20-25 years ago when I first became interested in grevilleas, we had only to worry about *Grevillea rosmarinifolia*, *G. banksii* var. *forsteri* and, to a lesser extent, *G. robusta*. However, as *G. robusta* was, and still is, easily raised from seed, and being a large tree, its importance as a garden plant is strictly limited, I will not dwell on it. *G. banksii* var. *forsteri* is also easily raised from seed, which unfortunately is not always readily available. We used to propagate rosemary by taking short cuttings 1-2" in the spring and inserting them in sharp sand in community pots (clay). Generally, rooting was good but many losses occurred in the transplanting so here, of course, the advent of the plastic tube grew to be of great significance. A cutting is now inserted in its new tube, rooted, and hardened off still in its own container, and eventually potted on, losses at this stage now being non-existent.

In an effort to build up stocks we have tried putting down cuttings every month of the year. We found the spring cuttings to be the best. They strike in a matter of a few weeks whereas at other times the rooting process seems to take much longer. I mentioned the advent of the plastic tube as being of some importance. Of equal importance, of course, was intermittent misting. As far as *G. rosmarinifolia* and its family were concerned, for us it was disastrous. The cuttings regularly turned black in a matter of two to three weeks so we quickly learned to turn off the mist and kept them moist by manual methods, at the

same time airing regularly to prevent the frames from getting too hot.

A number of grevilleas allied to the rosemary family gave us mixed results; for example we had no difficulty in striking *G. dallachiana* but found it did not prove to be a long living shrub in the coastal gardens of Queensland although better results seemed to be obtained in the Toowoomba and inland districts. *G. jenkinsii* and 'Olympic Flame,' (we are still trying to sort out the difference here) have proved very reliable both as to growth and flowering. We have also managed to sort out and clarify the confusion with *G.* 'Pink Pearl', 'Canberra' and *Juniperina* 'Rubra.' We have finally established that these three names refer to the same plant, and the true name is apparently 'Canberra'.

Now, of course, we come to the latest introduction — 'Desert Flame'. This has proved a bit of a disaster in Queensland, at least in coastal gardens. Our original plant strangely is still going strong. Its first year was magnificent and encouraged us to give glowing reports. It is still growing strongly although all its progeny growing in plastic bags out in full sun looked as if they had had a flame thrower over them by mid-January last. Other nurseries in Brisbane suffered similarly, and with the help of Dr. Helen Ogle of the D.P.I. it was established that the damage was caused by *Phytophthora parasitica*, which of all things, apparently is present in the Brisbane water supply, and judging by reports from other towns along the coast, is apparently in all coastal streams. Don't ask me why it survives the local treatment works because nobody can tell the answer to that one so far. Strangely, 'Desert Flame' is still selling for us in inland towns so one must assume that the higher alkalinity of the inland streams helps to inhibit it. We have not explored this further yet. However, as we seem to have a plant here that would not be successful for the home garden; production of this line in Queensland has been curtailed.

Two other very good grevilleas which have always been in short supply are *G. lavendulacea* and *G. beueri*. Both of these have performed well in our trial garden and appear to be readily propagated. We do not anticipate much difficulty in building up stocks of these two.

Another little grevillea with fine leaves and rich mauve flowers, not well known at this stage, called 'Shirley Howie' excites a lot of attention; I think this could also become a very popular small shrub. *G. punicea* (rich red) and *G. sericea* (mauve pink) are taller growing species which have an appeal to the native plant lovers. Grevilleas of course are such a wide ranging group of shrubs and there are so many from one end of Australia to the other that it is going to be difficult at all times to get a very good one to do well in all conditions. Quite a number of the

best cultivars, it would appear, will have to be confined to fairly well-drained areas. I would not like to see a number of these not grown because of the feeling that they do not do well in other parts of Australia. I would like to talk briefly on some of the ground covers that have come to my notice. *G. bitenata*, grown on a well-drained site has proved excellent. In conditions of poor drainage or times of excessive rains, disaster has struck. For those that don't know it, it is a fine-leafed, thickly-growing ground cover, rich green in colour with masses of tiny creamy white flowers in spring. Sometimes the flower stalks are on stems 2' high. *G. gaudichaudii* is a richly coloured (red) broad-leafed cultivar, spreading rapidly over rocks and ground, and has brilliant scarlet flowers. *G. repens* has grown rather well for us, but flowering has been poor; we are persevering with it. *G. thelemanniana*, green and grey forms, have both grown very well in well-drained situations but the flowering on the grey form — brilliant red and gold — is far superior.

Now I would like to talk about that other group, probably the most cursed as far as we are concerned, the *Banksii* group. This rather broader-leaved, toothed group includes such species as *G. hookeriana*, 'Ivanhoe' and *G. asplenifolia*. These we have tried all ways and have not come up with a really satisfactory method of propagation. They appear to do equally as well, (or as badly) under mist, constant and/or intermittent, as without. They sit there merrily for months, firm to the gentle tug, lulling you into believing you have a batch of well-rooted cuttings. A close inspection reveals a great big callus, like some conifers, but no roots. Returning the cuttings to the bench merely results in an increased callus, percentage of strike being around 10-20%. We are seriously thinking of trying piped music, and the only advice I can offer you on these is to put a couch in your propagating shed, so that if you ever feel like starting on these cultivars, you can go and lie down until the feeling passes away.

Seriously though, grevilleas are a wonderful group of Australian shrubs and do have a definite place in the landscape and home garden, and as such, are of great economic importance.