Breeding and Selecting Correas®

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INTRODUCTION

The genus *Correa* belongs to the family Rutaceae. It occurs naturally in eastern Australia from near the Queensland border through New South Wales, Victoria, Tasmania, and South Australia. There are 11 species ranging from prostrate groundcovers to 4-m-tall shrubs. They mostly flower from late summer through autumn and winter and are pollinated by birds and bees. The four petals are fused into a corolla or bell and may come in a wide range of colours from green, red, pink, white, orange, and yellow or a combination of these colours (Fig. 1). They are easily propagated and make ideal garden or pot plants.



Figure 1. Flower clusters of Correa.

I grow all my correas in pots and for pollination move them into an insect-proof tunnel as they come into flower. I remove any opened flowers and emasculate all the new flowers immediately as they open. With correas, the stamens ripen and shed pollen soon after the flower opens, but the stigma is not receptive for 3–4 days after that. The stigma is receptive when the four lobes recurve backwards and become sticky. For pollination a stamen can be plucked from a freshly opened flower of the desired male parent and dabbed on to the stigma. A good sign of successful pollination is when the corolla withers and falls off 3 days after pollination. The four-capsuled fruit may start to grow from this point. However, it is not unusual with some species for the fruit not to grow at all for up to 6 months, then suddenly grow and mature fairly quickly.

If everything goes well you can collect up to 12 seeds per fruit but 1–4 is more common. When the seed is mature the fruit splits open and the seeds are expelled in an explosive fashion. Consequently, the fruit needs to be bagged while still quite green to stand any chance of collecting seed.

Seed can be sown immediately after collected, but I tend to wait until mid-January when all my crosses are harvested, then clean and sow the lot at once, carefully labeling each batch as I go. Once sown, *Correa* seed needs to be treated with smoke to induce germination. Otherwise you could wait years for any seedlings to appear. Even after smoke treatment, germination can take 6–8 weeks and may continue for 3 months. To treat the seed I place the seed trays in a plastic tent and put a smouldering drum of eucalyptus leaves in the tent as well. The trays remain in the smoke for at least $\frac{1}{2}$ h.

By the time *Correa* seeds have germinated and the cotyledons spread, the roots have already gone down 5 cm, so they need to be moved to individual pots. At this stage I label every seedling to prevent any chance of a mix up. The labels remain with the plant until it is named or discarded.

Seedlings can occasionally flower in their second year but in their third year is more likely. At this stage it is time to start culling unwanted plants. I find this difficult as practically all the seedlings have some merit and would probably make reasonable garden plants. However, now is the time to be ruthless and if the seedlings are not different, better than other selections on the market, or to be used for further breeding, then they are destined for the compost heap. Occasionally a seedling with some potential is given another year as flowering can improve in the second season.

Correas are particularly easy to grow from cuttings and the best of the seasons seedlings are propagated with the aim of producing 50 plants of each. These are grown-on to further check their performance. The top performing clones from this trial may go on to be bulked up for commercial release.

We try to involve our customers in the selection process whenever possible, to gain their feedback on the market potential of any new cultivars.