Bougainvillea Propagation

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INTRODUCTION

Bougainvilleas are spectacular climbing plants, native to South America. In Australia, although they certainly grow best in warmer areas, they can be found growing outdoors as far south as Hobart (Latitude 42 S), if given the right position.

This paper is not meant to cover all aspects of *Bougainvillea* propagation; rather, it describes the methods used at our nursery.

CUTTING PROPAGATION

Stock Plants. We grow the majority of our stock plants in containers because of the control it affords us over production. We have also found that some types, particularly of *B. glabra*, are more productive as young (1- to 2-year old) plants and this allows us to obtain our cutting material from potted stock and then sell the plant. Stock plants are grown under cover (plastic film) to regulate watering and reduce foliar disease. Nutrition is supplied by the application of controlled-release fertilizer (Osmocote) annually, which is supplemented by an application of nitrogen (I.B.D.U. at 1 g/liter) after each cut. Trace elements are supplied as required.

When cutting material is removed from the stock plant, the plant is pruned back to a leaf less stump from which we encourage the production of 6 to 10 canes.

Stock plants grown in 300-mm diameter pots give us about 150 cuttings per year from four harvests, whereas our outdoor stock gives us up to 1000 cuttings per year from two harvests. Material produced from potted stock plants gives us more uniformity in quality than that produced from in-ground stock.

Cutting Preparation. Cane is collected two or three times daily and kept moist by spraying with heavily chlorinated (200 ppm chlorine) water. Cuttings are harvested from September until May and range from hardwood through firm tips—our preference being for wood which is changing from green to brown in colour. The length of the cutting depends on the type of plant we wish to produce. The vast majority of cuttings are prepared as 4- to 6-node cuttings, 100 to 125 mm long with 3- to 6-mm caliper. Other cuttings are prepared up to 1.8 m long to produce "standards" or "lollipops". These have calipers up to 30 mm. With our smaller cuttings, the top two leaves are retained and these have their leaf area reduced by at least 50%. The large cuttings are prepared leafless.

Cuttings are treated with hormone powder and then set out in 50-mm plastic tubes containing a mix of 10 parts perlite to 3 parts peat moss. We use IBA at strengths varying from 4,000 to 16,000 ppm, depending on cultivar and the time of year.

The Propagation Shed. Trays of cuttings are placed in a plastic-covered igloo. Bottom heat is used to maintain a bed surface temperature of 25 to 27°C and intermittent mist is applied to maintain humidity. As bougainvilleas do not tolerate a wet environment, the application of mist needs to be carefully monitored.

Cuttings receive a light application (150 ppm N) of foliar feed 2 to 3 times each week until root formation is evident (generally at 3 to 4 weeks). Rooted cuttings are removed from the propagation shed, controlled-release fertilizer is applied and plants are held under either light shade or plastic film. During periods of wet weather a copper spray is applied weekly to reduce the incidence of bacterial leaf spot, the only significant disease of *Bougainvillea* in Brisbane.

OTHER PROPAGATION METHODS

Bougainvillea does not readily set seed in Brisbane. Our limited experience with seed has shown that fresh seed germinates readily in about 3 weeks, but we have yet to produce a useful plant from seed.

There are several references in the literature to budding and grafting of *Bougainvillea*, but we have not used these techniques ourselves. Similarly, *Bougainvillea* have been successfully tissue cultured, however, I doubt that this would be economic, given the length of time required to produce a saleable plant and the high success rate of conventional cutting propagation.