

Towards 2000—Development and Propagation of New Plant Material

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We need plants in our gardens and cities for food, beauty, and health. It's a green revolution and our I.P.P.S. Society is vital to that revolution, without plant propagators it can't happen.

To this end, keen plants people all around the world are becoming hungry for new plant material as well as reintroducing the old. New plants are developed by: research, breeding, mutation and sports, radiation, and gene splicing. Old plants are reintroduced by: reintroduction in a new mode, using chemical retardants, using chemical enhancers, elimination of viruses, and clonal selections.

As a grower you may be blessed with a once in a lifetime find. But if you live long enough and are super sharp, you may be lucky enough to find more in a lifetime. My nursery has introduced a number of sports and I will outline the development and propagation of three of our best introductions.

***Cupressus arizonica* 'Blue Ice'**. I found this cultivar as a chance seedling among a line of shelter trees growing in our nursery beds in the 1960s. This plant stood out from the rest with its ice blue look. I put it under glass in a 2-gal container. Cuttings were taken in February 1961, dipped in 8,000 ppm IBA, and set in a pumice and peatmoss medium (8 : 2, v/v) bottom heated to 20°C. The cuttings were propagated on a dry/wet cycle, keeping the wound dry until a good callus had formed and then increasing the mist to induce rooting but avoiding too much wetting of the basal area to prevent rotting. Weekly applications of Captan and Topsin were used as a preventative spray. First rooting showed in September (spring) 1961. Twenty rooted cuttings then became the base of the initial stock plants for the half million liners I have produced to date. It is very important to keep stock of this cultivar juvenile. Cuttings from plants more than 3-years old become very difficult to root. 'Blue Ice' is very tolerant of dry conditions. Its attractive silvery foliage and conical shape makes for a superb large specimen conifer as well as being ideal for hedging and shelter belts.

***Pittosporum tenuifolium* 'Silver Magic'**. This is one of our choice New Zealand native cultivars prized for garden backdrops, hedging, and cut foliage. It was found as a sport in our nursery on *P. tenuifolium* 'Silver Sheen' as one small variegated branch of three cuttings. These were rooted in a shade tunnel under intermittent mist with a pumice and peatmoss medium (8 : 2, v/v) bottom heated at 15 to 20°C. The secret to rooting pittosporums, as with most New Zealand natives, is a well-drained mix, and top temperature below 20°C maximum to avoid leaf drop. Cuttings taken in June (winter) are rooted by September (spring). Three cuttings were the basis for one of our most popular native lines. It is interesting to note that sporting occurs quite regularly in *Pittosporum* cultivars, and hard pruning seems to induce reverse colour breaks.

***Lysimachia* ‘Sunbird’ PVR.** The initial cultivar from which this plant originated was of German origin, with my initial stock imported from Outeniqua Nursery in Australia. After establishment of this initial crop, I noticed that one plant had developed a small pink splash on a leaf. I cut the stem of this back to the crown and rooted it in a peatmoss and pumice medium (1 : 1, v/v). When the rooted cutting had a good root system, I took the tip with the variegation and rooted it. The resultant shoots from the underground node produced a more uniform variegation. From then on I continued to work on the plant and selected better variegations as they appeared from each group of cuttings. A year of persistent selection resulted in a stable variegation. Thus was *Lysimachia* ‘Sunbird’ borne.

‘Sunbird’ is a unique variegation of green, and cream to brilliant pink, with yellow flowers making it an attractive groundcover, patio, or hanging basket plant.