Plants – when only the best will do

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Much of my career has been spent seeking and developing plants with superior qualities. During this time I have also been privileged to work with some of New Zealand's leading plant collectors and breeders, people whose talents and passion have provided the gardeners of this country with many of our most useful garden subjects.

Collections of great plants do not of course necessarily make for great gardens. When outstanding plants are used creatively, however, great gardens can emerge. I can think of no better example of gardening as artistic expression than Ayrlies, Bev McConnell's (Fig. 1) New Zealand Gardens Trust 'Garden of International Significance' in Whitford.



Fig. 1 Beverley McConnell, creator of Ayrlies garden. Bev was 2012 recipient of the prestigious RHS Veitch Memorial Medal.

Bev carefully assesses the plants in her garden, selecting the best and using these in creative combinations. The plants on display include carefully selected deciduous trees that colour well in Auckland, rhododendrons, roses and *Clematis* that perform best in local conditions and many other useful plants seldom encountered. I have learned a great deal from Bev's approach to plant selection and use.

I believe that the greatest contributors to gardening are those people with the ability to view things from a completely different perspective. Graeme Platt (Fig. 2) is such a person, an innovator unconstrained by conventional thinking. He has made a huge difference to gardening in this country, influencing greatly the range of plants we have available and the way many gardeners think.



Fig. 2 Graeme Platt, plant selector extraordinaire. Graeme is holding flower colour variants of *Metrosideros excelsa*, for which he has introduced several fine forms into horticulture.

When I first met Graeme thirty years ago it was immediately obvious that he held strong views that he was prepared to put into practice. When he spoke people listened, but many doubted his ideas would ever come to fruition. I remember the scepticism when he talked of making potting media from pine bark rather than the peat and sand mixes common in the day. Pine bark is now of course the main ingredient of most potting mixes in this country.

When I entered horticulture in the mid-1970s most of the available native plant cultivars were inferior selections, with a high proportion of them being variegated. They were not particularly popular, being generally regarded as inferior to exotics and suitable mainly for amenity plants where low maintenance was required.

I remember asking at a garden centre I briefly worked at why they were not displayed more prominently. I was told they did not sell well enough, understandable as they were tucked away in a remote corner.

When Platt's Native Plant Nursery began selling native plants in late 1974, it gradually changed the way that gardeners and landscapers thought about our native flora. For some twenty years Graeme scoured New Zealand for superior forms of native plants, and he sold these from his Albany nursery. Gradually other nurseries began propagating his selections and they spread around the country.

Today Graeme says he can walk down any street in the country and see plants he introduced growing in gardens. His popular introductions include *Coprosma* 'Hawera', *Metrosideros excelsa* 'Vibrance' (Fig. 3), *M. × sub-tomentosa* 'Mistral', *Phormium* 'Platt's Black' and *Podocarpus totara* 'Matapouri Blue'².



Fig. 3 *Metrosideros excelsa* 'Vibrance', a cultivar co-selected by Graeme Platt. This avenue, growing at the Auckland Botanic Gardens, is magnificent in flower and attracts great interest from the public.

Perhaps the most important thing I learnt from Graeme was to understand that all plants are not created equal. Species are not groupings of indistinguishable clones, but they can contain considerable diversity with some individuals offering far more garden merit than others.

One example was when we collected cuttings off several wild plants of *Hebe diosmifolia*. These were grown on and as they matured each exhibited quite different

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² For a more comprehensive list of Platt's selections, see the New Zealand Garden Journal, 2011, Vol. 14, No. 1, pp. 21–22.

characteristics, some more vigorous than others with flower colours varying from white through various shades of lavender.

Hebes (native *Veronica*, if you follow some botanists) had been a passion of mine for some time but I found their susceptibility to disease, especially in the Auckland climate, frustrating. This was the main initial reason for commencing a breeding programme devoted to the production of healthy *Hebe* cultivars (Fig. 4). This programme was largely based on using genetically superior plant selections introduced by Graeme Platt and others as parents.



Fig. 4 *Hebe* 'Wiri Mist', a cross between *H. diosmifolia* and *H. albicans* raised by Jack Hobbs.

One of the most important parents in our breeding programme was a pink flowered form of *Hebe diosmifolia* obtained from Jim Howard of Westoe. Sadly we have both lost this plant, but its essence remains alive in *Hebe* 'Wiri Charm' and other hybrids.



Fig. 5 Terry Hatch, of Joy Plants, Pukekohe. This photo catches Terry pollinating one of his beloved plants.

Terry Hatch (Fig. 5) is another passionate and generous plantsman who has contributed hugely to gardeners in this country. When we first met, Terry was interested mainly in exotics and he has long been regarded as one of New Zealand's leading experts on bulbs and perennials. More recently he has become a leading authority on our native flora and a passionate conservation advocate. Terry is what I would describe as an 'intuitive' gardener, his decisions often seemingly spontaneous but driven by an innate understanding of and love for plants.

I well remember encountering Terry's Osteospermum 'Whirligig' when I visited England in the early 1990s. Other introductions to make an international impact have been Carex comans 'Frosted Curls' and the wallflowers Erysimum 'Joy Gold' (golden-yellow flowers) and E. 'Winter Joy' (purple). His compact bushy kowhai Sophora molloyi 'Dragons Gold' has also been widely grown. The range of plants Terry has worked with includes Alstroemeria, Nerine, Zantedeschia (calla lilies), and many more. He rates highly his new 'environment safe' Agapanthus 'Pavlova', a compact cold-hardy cultivar with cream flowers and short blue-grey leaves.



Fig. 6 Clivia cultivar.

Terry is currently focussing on breeding compact clivias (Fig. 6), carrying flowers with picotee and fimbriated edges.



Fig. 7 Dr Keith Hammett, a professional, private ornamental plant breeder of *Clivia*, *Dahlia*, *Dianthus* and sweet pea.

Other *Clivia* breeders such as Dr Keith Hammett (Fig. 7) are taking their programmes in different directions, so we can expect to be offered an increasingly diverse range of these wonderful shade lovers in years to come.

Working closely with Dr Keith Hammett on various breeding programmes for more than ten years was one of the most rewarding periods of my career. Keith's approach is always measured; his goals and processes carefully considered and adhered to with admirable discipline. Keith is quite probably this country's most internationally significant breeder of ornamental plants; his achievements include 'reinventing' the Dahlia. Most of the popular dahlias we know were derived from a very narrow genetic base, whereas Keith has utilised not only many more species but variants within these species. His cultivars are much more 'well rounded' garden subjects, exhibiting attractive foliage, sturdy compact habits and a profusion of blooms on healthy plants. These make far better garden subjects than older cultivars bred primarily for the show bench. Popular compact cultivars with bronze foliage from the Hammett programme include the pink and white striped Dahlia 'Mystic Dreamer' (syn. D. 'Kapow') (Fig. 8) and the single yellow flowered Dahlia 'Mystic Illusion' (syn. D. 'Knockout') (Fig. 9).



Fig. 8 Dahlia 'Mystic Dreamer', bred by Keith Hammett.



Fig. 9 *Dahlia* 'Mystic Illusion', bred by Keith Hammett.

Another unsung hero of gardening in this country is Neville Haydon (Fig. 10), long-time owner of Camellia Haven. Neville has bred many outstanding *Camellia* hybrids such as *C*. 'Baby Bear' and the elegant *C*. 'Festival of Lights' (Fig. 11). Neville has also contributed some fifty *Camellia* species to our collection at Auckland Botanic Gardens.

Today's prohibitive restrictions on plant importation make the work of our plant breeders and collectors even more important. It is also timely that we look at the vast array of useful but neglected plant material we already have in this country. There are numerous outstanding garden plants that deserve to be much more widely utilised awaiting rediscovery³.



Fig. 10 Neville Haydon, Camellia breeder.



Fig. 11 *Camellia* 'Festival of Lights', bred by Neville Haydon.



Fig. 12 A fine hedge of *Coprosma* 'Beatson's Gold'.

Coprosma 'Beatson's Gold' (Fig. 12) has been around for decades but these days is seldom encountered. It makes an exceptional hedge that can be formally clipped to heights between 50 cm and 1.5 metres. *Coprosma* 'Beatson's Brown', a sport of *C*. 'Beatson's Gold' and discovered by Graeme Platt, has similar qualities. The tangled *Muehlenbeckia astonii* is another fabulous native shrub, ideal for contrasting with bold foliage and making a great hedge either clipped or billowing naturally.

A handful of outstanding new perennials have become available to New Zealand gardeners over the past decade; none are better in my view than the bold *Farfugium japonicum* 'Giganteum' (syn. *Ligularia tussilaginea* and other names) and the profuse *Geranium* 'Rozanne'. Others to impress include *Arctotis* 'Fireball', *Gaura lindheimeri* 'So White', *Scabiosa* 'Vivid Violet', and the vigorous shade-loving *Pulmonaria* 'Raspberry Splash'.

An aspect of gardening that increasingly interests me is maintaining healthy plants and gardens without resorting to agrichemicals. At Auckland Botanic Gardens we have demonstrated over the past twelve years that this is quite achievable. I do not fully understand why our chemical free regime works so well. Intuitively I believe it is because our gardens now contain such an abundance of life that it is difficult for any pathogen to assert itself to the degree it becomes a problem.

When we first ceased spraying our plants in the late 1990s it was roses that gave us most concern. Auckland has such high humidity and relatively mild winters that it must be one of the most difficult climates in which to sustain plant health, and roses in particular are notoriously prone to pests and diseases.

The main reason we decided to stop spraying was our concern for public and staff health. Visitors were accessing the garden shortly after spraying was completed, with many a scent-seeking nose thrust unsuspectingly into beautiful but potentially toxic blooms.

The rose garden was being sprayed about twenty-five times a year, usually with a cocktail of three or more chemicals. The objective was to kill pests and prevent diseases, but the unfortunate implication was that most life was being exterminated, including beneficial organisms.

Any interruption to the spray programme by inclement weather invariably resulted in a rapid disease outbreak. It seemed that a vast army of pathogens were standing by to occupy the vacuum we had created.

When we stopped spraying we had little idea what the results would be. Our approach was 'cold turkey'. We just stopped and waited to see what happened. Roses that became unacceptably disease-ridden were removed, with more than half the original population of 6,200 roses having been disposed after two years.

We also commenced a two stage trial programme. The first stage trial assesses the susceptibility to disease of different cultivars over just one year. Roses that clearly cannot cope without spraying are destroyed. Those that remain relatively healthy are moved into nearby beds for a lengthier trial period. Cultivars that

³ This is a prime purpose of the RNZIH New Zealand Plant Collection Register Project.

perform outstandingly well over the next few years are then elevated to our main rose display gardens, and they also feature in our advisory leaflets on recommended roses.



Fig. 13 Rosa 'Serendipity'.

Public visiting our Rose Garden can now choose the roses they wish to grow at home confident they will perform well without spraying (Fig. 13–15), assuming of course they are given the correct growing conditions.

The health of our roses is better now that it ever was when we sprayed, and the garden is alive with life including vast populations too minute to see. Today we fear that even one application of pesticide could upset the balance.

Ornamental gardening is for pleasure, and for me it is never more enjoyable than when great plants are displayed in gardens flourishing with life.

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Fig. 14 Rosa ×odorata 'Mutabilis'.



Fig. 15 Rosa 'Roseraie de l'Hay'.

Roses – top performers at Auckland Botanic Gardens

Floribunda (cluster flowered)

- R. 'Fond Memories' (pink)
- R. 'Iceberg' (white)
- R. 'Serendipity' (yellow) (Fig. 13)
- R. 'Summer Passion' (pinky apricot)
- R. 'Tropical Delight' (red/yellow)

Hybrid teas

- R. Nelson Girls (apricot)
- R. Warm Wishes (soft peach coral)

Shrub

- R. 'Lavender Dream' (pink/lavender)
- R. 'Sally Holmes' (creamy white)

Groundcover

- R. 'Flower Carpet Red'
- R. 'Flower Carpet Scarlet'

China

R. ×odorata 'Mutabilis' (honey/orange-red) (Fig. 14)

Теа

- R. 'Archduke Joseph' (pink blend)
- R. 'Jean Ducher' (soft salmon pink)

David Austin

R. 'The Alexandra Rose' (pink)

Rugosa

R. 'Roseraie de l'Hay' (crimson/purple) (Fig. 15)

Polyantha

R. 'The Fairy' (warm pink)

Modern climbers

- R. 'Compassion' (pink/apricot)
- R. 'Dublin Bay' (red)
- R. 'Pinkie' (mid pink)
- R. Uetersen (deep pink)

Old climbers

- R. 'Albéric Barbier' (Rambler creamy/white)
- R. 'Crépuscule' (Noisette apricot))
- R. 'Madame Alfred Carrière' (Noisette pink/white)
- R. 'Souvenir de Madame Léonie Viennot' (Climbing Tea
- salmon/coppery pink)
- R. 'Veilchenblau' (Rambler purple/violet)