RHODODENDRONS 1986-7
with Magnolias and Camellias

The Royal Horticultural Society
London

Acknowledgements

TO THIS ONLINE EDITION

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2025

RHS
Rhododendron, Camellia & Magnolia Group

Front cover:
Rhododendron campanulatum subsp. *aeruginosum* supplied by Lt-Col. Sir C. Richmond Brown

Please note that last year's cover photograph, taken by J. Sanders, was of *Rhododendron citriniflorum* var. *horaeum* F 21850.

RHODODENDRONS 1986-7

with

Magnolias and Camellias

THE ROYAL HORTICULTURAL SOCIETY
VINCENT SQUARE
LONDON

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Honorary Editor for the Rhododendron Group:

JOHN SANDERS, BA (Hons).

Editors:

ELSPETH NAPIER
KATE DONALD

Contents

Illustrations

Trelean valley garden

G. T. WITHERWICK

Having spent 30 years making a four-acre garden from scratch on the greensand of Surrey, it was decided, or rather the opportunity presented itself, to acquire a valley on the south side of that delightful Cornish river, the Helford. Lady Luck was on my side insofar as it was in pristine condition, full of indigenous trees, with a lovely stream mainly fed from springs. Furthermore, the site was within the middle reaches, the least spoilt of this tidal waterway. We literally moved lock, stock and barrel, not only our goods and chattels but four lorry- and seven estate-car-loads of trees, shrubs and plants of all kinds; probably the biggest do-it-yourself instant gardening consignment ever to cross the Tamar into Cornwall. One of the vehicles used was, in fact, a removal van in which were stacked longitudinally some two dozen deciduous trees, 'all balled and tied', up to 18 feet in length, corner to corner, right up to the roof, several having to undergo major surgery of several feet at the back of the van in order to get 'em in, together with very many more trees and shrubs of all kinds packed in like sardines, so much so that the driver who came with the van was heard to remark in an audible aside 'Some furniture this lot, more like a load of bloody peasticks'.

This is no back-of-the-house garden, since the valley lies over 600 yards from the farmyard, approached down a very old path known as Doodes Lane, a delightful, truly Cornish lane, full of wild flowers and wayside trees. Then, running the whole length of the valley, is a ferny and mossy stream, created and fed by our two springs (one of which supplies the house), which, as it sings over many rills to spill itself on to the beach, is overhung by willows, hazels, oaks and holly. In fact the whole valley is wooded, with a two-acre area in its upper third of mostly bracken. It is this area which now largely constitutes the garden, which is different from most, having no pretence at formality, no lawns, spacious or otherwise, no cement or tidy, edged beds, no rockeries or concrete pools. It is made to complement the typically Cornish natural beauty, just as it has always been since time immemorial. All suitable wild flowers are encouraged and added to, so much so that on one open day a visitor bounced up and exclaimed, 'How did you manage to plant all these hundreds of foxgloves?' Unromantically the answer came pat, 'I was at it all day and night'.

The garden is created at the sides of the paths which envelop the steep western side of the valley, some more suitable for alpine goats , but all run into each other so that there is no retracing of steps, with new vistas and panoramic views over the river opening up before you. There are banister rails and posts for the tricky bits to aid the not-so-young. There is, however, one flat area divided into two by a small patio which is surfaced with inch-thick Delabole slate, 7 tons of it! This folly is enhanced with massive, granite steps, antique, granite groins and granite mushrooms, these latter used by Cornish farmers of old to build their ricks upon in order to frustrate the rats. The main lower valley path, some 500 yards long, took all the winter of 1980/81 to construct, and nothing was planted in the valley until spring 1981. This path, running parallel with the stream, has a steep drop and within this shaded area has been planted most of the large-leaved rhododendrons, thus enabling us to look down upon their massive foliage and beauty of flower. One can, of course, look upwards at the plantings on the high valley sides. A good many of the plants have been grown from Wisley seed. The large-leaved ones include *fictolacteum, macabeanum, hodgsonii, sutchuenense, sinogrande, coriaceum, calophytum, arizelum, eximium, discolor, diaprepes, decorum, rex, falconeri* and *auriculatum*, but due to two consecutive dry summers, *basilicum, fulgens* and *giganteum*, along with others, have now been removed to a 'blazing' environment. There are many other rhododendrons, perhaps over 200 of the small- and medium-leaved forms which one would expect to find.

However, mention should be made of *R. yakushimanum*. This, in my opinion, is the best of all-round rhododendrons we have and suitable for Mr Everyman's garden. From a packet of Wisley seed harvested from the plant brought from Exbury by Francis Hanger (Curator at Wisley 1946-61), some twenty odd plants were grown. Subsequently it was noticed that three leaf forms appeared to exist and one outcast! Taking the bull by the horns, I tackled Francis Hanger upon this state of affairs. His reply was nothing short of a bombshell, 'Yes there are three different forms, and I can only assume that this is not a single species but three hybrid forms from the species'. This conversation took place long before the article appeared in the *RHS Journal* by the Japanese botanist who discovered *R. yakushimanum* on the island of that name off Japan, wherein the three leaf forms are mentioned, all growing at different levels on this atoll along with the species *degronianum*; this is my 'outcast' which very nearly went on the bonfire. At Trelean, my best specimen is a good plant of the pink-flowered type which holds its colour often up to seven days and is, in my humble opinion, as good as the F.C.C. form.

The new growth of several large-leaved rhododendrons is almost as attractive to the garden scene as their flowers, and most spectacular. The *campanulatum* subspecies *aeruginosum* produces a blue-green shade best

described as verdigris and if placed to embrace the feathery foliage of *Acer palmatum* 'Dissectum Atropurpureum', will give an arresting ensemble, the more so in partial shade. Then, *cinnabarinum* in all its forms has beautiful blue colouring, as has *concatenans*, but probably the bluest of all is *viridescens*. *Rhododendron magnificum, giganteum,* and *sutchuenense* to a lesser degree, all have massive bayonets of new growth surmounted by pricked rabbits' ears; *falconeri* with its bold foliage is distinctive with a yellow midrib and rich fawn indumentum, contrasting with the bright buff indumentum of *rex* with shoots and bracts to match. The metallic indumentum of *macabeanum* is reminiscent of the ill-fated R.101 airship's fabric glinting in the sun; and then there is the amazing 'rust' indumentum of *eximium,* sister to *arizelum*. Lower down the scale of leafage, *yakushimanum* is again 'tops' with its indumentum above, and white kid-glove below, only outdone by the pristine chalkiness of the underside of *coriaceum*'s leaf. Again there is the arresting ruby new growth of 'Elizabeth Lockhart', which gets darker as the days shorten, whereas the brilliance of the burnished copper of 'Bow Bells' fades as quickly as the 'shrimp' new growth of *Aesculus neglecta* 'Erythoblastos', but is less of a shocking pink than *Acer pseudoplatanus* 'Brilliantissimum'. Now just 'unwrapped' from Taiwan and Glendoick is *pachysanthum* with leaves covered with thick silver indumentum above and thick gravy brown beneath, its flowers a rich ruby red. Finally we have *mallotum, wasonii, bureavii* and 'Sir Charles Lemon', all with superb foliage and having deep, rusty red indumentum. Incidentally, my 'Sir Charles' has yet to flower, after 21 years and at least six Bowles' exercises! What's in a name? The answer I suppose!

In order to relieve the somewhat funereal heaviness of rhododendrons from July onwards, plantings of the following subjects have been made: *Stuartia*, tree cornus, Norway maple and its cultivars, with special use of those *Acer* species which are ideally suitable with their light, contrasting foliage and size, especially *rufinerve, pensylvanicum, griseum* and *capillipes, davidii* 'George Forrest' and *cappadocicum* 'Rubrum'; another is *japonicum* 'Vitifolium'. Furthermore, these acers enhance the autumn colour in the valley garden. In all, some fifty *Acer* species and their cultivars are planted, together with a further hundred or so plants of known autumn colour value. Hydrangeas in the forefront are most useful, the lacecaps liking the partial shade to show off their flowers to perfection, in particular 'Blue Wave', 'Lanarth White' and 'Mariesii', aided by the *serrata* cultivars 'Grayswood', 'Blue Bird' and 'Rosalba'; *villosa* is given a specimen position.

Within the middle part of the valley, under the canopy of massive 200-year-old oaks and 40-foot hazels, are planted shrubs and small trees, seeking shade and wind cover with a moist root run, such as *Viburnum alnifolium, Taxus baccata* 'Adpressa Aurea', *Paulownia, Tetracentron,*

Decaisnea fargesii, *Parrotia persica* and its cousin *Parrotiopsis jacquemontiana*, *Nyssa*, *Liquidambar formosana* var. *monticola*, *Photinia villosa*, *Cornus capitata*, *Acacia dealbata*, *A. melanoxylon* and *A. pravissima*, *Leptospermum scoparium*, with its winter, pink flowers needing overhead frost cover; *Populus lasiocarpa*, *Liriodendron tulipifera* 'Aureomarginatum', *Fagus sylvestris* 'Rohanii', 'Purpurea Tricolor' ('Roseomarginata'). This collection is enhanced with three outstanding *Sorbus* 'John Mitchell', *sargentiana* and *megalocarpa*. The last, a small neat tree from western China, is a most interesting addition to our gardens. It flowers in early spring with large corymbs of highly smelling, cream flowers, subsequently leafing out with vivid terracotta-coloured, puckered leaves, very much the same shade as the new growth of *Rhododendron sinonuttallii*. Later it produces autumn tints and large, egg-shaped fruits. This description barely does it justice.

Proceeding further down the valley, which is now becoming steep and narrow, much shaded from the thick overhead oak branches covered with lichen, moss, *Polypodium* ferns and ivy – whilst all around masses of male ferns cover the ground, along with harts tongue and hard fern - the stream is now almost lost down its deep ravine cut over the centuries. The feeling of time at a standstill is at once stimulated by the essence of seaweed as the path turns to the left at the bridge at the start of the 1/4-mile riverside walk, tree-clad all the way to the beech wood and the clear view of Tremayne Quay, especially built for Queen Victoria to step on to from the Prince Albert Royal Yacht or, should the tide permit, a stroll along the foreshore.

Outside the valley, arboriculture goes on apace within Trelean's 20 acres. In the more exposed places, pines, poplars and nothofagus have been planted, including many Scots pine, maritime and bishops pine, arolla pine and Serbian spruce, Weymouth and Monterey pines. The best poplar is *P.* 'Robusta', with its clean, light-grey bole and flagstaff growth, and in mid-April its leaves are bright coppery-red; others are the white and balsam poplars. In the exposed parts, the three nothofagus most widely planted are *N. procera*, *obliqua* and *dombeyi*, all from Chile. In all there are over a dozen different kinds of these southern hemisphere beeches, including *N. nitida*, *fusca*, *moorei*, and *antarctica*. Conifers are well-catered for; in addition to the pines mentioned there are planted well over two hundred different kinds, including many *Abies*, mostly small as yet. However, one *Abies grandis* is over 12 feet and growing quickly, another, given a special site to view its glaucous undersides, is *Abies delavayi georgei*, 15 feet of lush growth, one of Alan Mitchell's gifts; another is the Japanese chestnut *Aesculus turbinata*, very floriferous and giving good autumn colour, its leaves as big as young elephant's ears.

Thirty two different *Eucalyptus* were given a prime site in a paddock

near the house, which is as fully exposed as can be found in Australia. Unfortunately, we had a gale in December 1979 gusting at 120 m.p.h. with the result that only seven of the gum trees survived the onslaught of complete defoliation. These were subsequently transplanted to a more sheltered position. A new collection of *Eucalyptus* has been started in more sheltered places.

One of the significant differences between gardening on the Surrey uplands and Cornwall is the big increase in evergreens which now falls within the general planting list. These include *Hoheria*, *Olearia*, *Callistemon*, *Leptospermum* and *Eucryphia*, the first four being wind hardy, whereas the eucryphias need some shelter to prevent defoliation.

The leptospermums are worthy additions to the garden scene, having a neat appearance, wind resistance and a good colour range, responding well to being cut back at the end of June after flowering. *Leptospermum cunninghamii* and *flavescens* are good whites; *scoparium* 'Chapmanii' bright pink and 'Nichollsii' carmine red, and 'Keatley' flowering in the winter with the largest flowers, a good inch in diameter, which are soft pink. All these evergreens are liking the sunny position of the top valley side.

The eucryphias luxuriate in this humid atmosphere, being elegant ornamentals for late summer flowering. 'Nymansay' is a fine hybrid, with probably the largest flowers of any, raised by that distinguished gardener, Harold Comber, at Nymans, Sussex. Another, introduced by the same Mr Comber, is *milliganii*, a very neat shrub in all parts, but tender; so is *lucida*, but it is fragrant too. The latter, and *E.* × *intermedia* 'Rostrevor' are two of several plants kindly given me by Walter Magor. Also here is *E. cordifolia* and the small deciduous *E. glutinosa* which has nice autumn colour.

The evergreen that is ubiquitous to Cornwall is, of course, the camellia. To enter the City Hall for the Truro Spring Show one cannot help being struck, metaphorically speaking, by the phalanx of shocking pink, to a degree beyond what might be seen at Vincent Square. Their popularity is mainly due to the fact that the degree of frost in early spring is seldom enough to cause serious damage.

At this point the opportunity presents itself to ventilate my views upon magnolias. In the first place, on the greensand of Surrey, for 30 years, which is a fair slice of gardening years, these plants did not show any desire to grow; briefly, there was no clay, no retained moisture, no magnolias, and far too much money being spent in trying. Then again, where they do grow, most need acres for their convenience, and, unless you live in Cornwall or similar 'favoured' areas, more often than not the flowers are spoilt by frost. So all in all, for me, magnolias are best in other folks' gardens.

Three neat, smallish magnolias to fit the average garden are *stellata*,

salicifolia and *wilsonii* and for a south wall, *grandiflora* 'Ferruginea' which can flower after 15 years, with the most polished sheen to the upper leaf surface, whilst underneath its thick, rich reddish brown indumentum will send most flower arrangers into an ecstatic state.

Hybrid rhododendrons can produce lists as long as beds royalty have slept in. However, those now growing at Trelean must well exceed 200 in number, but there are some special favourites – three outstanding yellows: Damaris 'Logan', 'Marcia' and 'Mariloo'; the deep maroon of 'John Galsworthy', almost black; the fine orange of 'Medusa'; 'Penjerrick' is still one of the finest small, open trumpets of pale yellow, tinged with pink; and Jalisco 'Janet' with apricot-yellow flowers off-setting ruby new growth. Fabia is a lovely *dichroanthum* cross, orange pink, deeper in its 'Roman Pottery' clone, whereas 'Francis Hanger' from the same species but with fragrance from 'Isabella', has a distinct orange-red colour. Two brilliant scarlets are 'Alex' and 'Gaul'; then later in the year 'Polar Bear' with its glistening white, fragrant trumpets set off by its ruff of red bracts. However, both it and *R. auriculatum* must have a moist site for their late July flowering. Oh! and 'Amor', another late love. Of two yet to flower, 'Jocelyn' and 'Stella Maris', a Naomi clone, we have great expectations. It is said everything comes to those who wait – provided you live long enough. Of azaleas we have a good number of Exbury, Mollis and the despised *luteum* – it's so common. Also the species *R. albrechtii, quinquefolium, pentaphyllum, bakeri, calendulaceum* and *schlippenbachii* with its attractive foliage; and two of the fragrant *occidentale* hybrids, 'Exquisitum' and 'Superbum'. A nice Knap Hill hose-in-hose is 'Homebush' and that pure white Vuyk hybrid 'Palestrina', but my favourite is 'Annabella', another Knap Hill azalea, its bright orange-yellow flowers well set off by the bronze new growth. Another that goes like love and marriage is the Azaleodendron 'Glory of Littleworth', whose creamy white flowers have a vivid flame-orange flash, and are set off by its bluey green foliage – it is fragrant too. So is that exquisite *Rhododendron cubittii* (along with *ciliicalyx*), excellent plants for shallow 9-inch wooden tubs to bring in for early spring flowering, a favourite of the late Lady Londonderry who knew what was what.

Plants in tubs are most useful accessories to the garden and white camellias do well in them. Those plants having a neat and upright habit are best, such as the × *williamsii* 'Francis Hanger'; *japonica* 'Alba Simplex' and 'Magnoliiflora Alba' are two more, but the one recently created at Tregrehan, 'E. T. R. Carlyon', sounds fit for a tub with silver hoops. If one to flower in the autumn is needed with fragrance, *sasanqua* 'Narumi-gata' is the one.

The camellia 'Leonard Messel' is an excellent woodland plant with rich, large, semi-double pink flowers. Another beauty is 'Salutation',

having silver-pink flowers. It does well in almost any situation. All × *williamsii* hybrids are first class, the only camellia which drops its flowers when finished. For a west wall, there is 'Kuron-jura', a lovely, single, waxy red flower with a yellow boss of stamens, an ideal button hole.

In all truth, during the past six years, the trials and tribulations of the Cornish weather here on The Lizard exceed anything experienced in my 30 years gardening in Surrey, for its sudden diversity. Our only blessing so far is that a typhoon has not yet hit the valley, nor an earthquake the house. We've had all the rest, and the plant losses have been heavy.

Several years ago, some hybridization was undertaken, having received some instruction in the art by the late Mr Gill of Penryn. The bulk of these crosses have yet to flower. However, at the end of last June one burst forth: 'Azor' × 'Argosy', a 7-foot robust plant with attractive foliage, large pink buds opening to massive white trumpets, about the size of 'Tyermanii', with a very faint pink flush at the throat, but with a heavy pervading scent beyond that of Loderi or Naomi; this first flowering was acclaimed by two worthy, expert Cornishmen, Walter Magor and Nigel Holman. Others yet to bloom are crosses using Loderi 'Pink Diamond', 'Tally Ho', 'Amor' and *discolor, auriculatum* and *serotinum*. Two more using *bureauvii* on *yakushimanum* and 'Bandoola' for foliage, are impressive.

Striking rhododendron cuttings has usually met with success, using the late Francis Hanger's method as set out in the *RHS Year Book* of 1949, and growing the species from seed is a most exciting pastime. A rewarding exercise is mulching rhododendrons with fresh bracken fronds in early July, when it carries the maximum amount of potassium, best when chopped (I use an old chaff cutter), otherwise a rotary lawn mower can be 'rigged up' as a versatile alternative. Another good rhododendron mulch is pine needles. Both these mulch materials, when applied to a depth of 2 inches, allow rain and oxygen access to the fine surface roots, whereas leafmould, peat, grass cuttings and bark do not. Seaweed appears more beneficial in the vegetable plot. At the moment a new method of propagation for hardwood cuttings is being tried with encouraging signs of success, but in truth there's nothing new under the sun in gardening – you've just got to do it yourself to find out.

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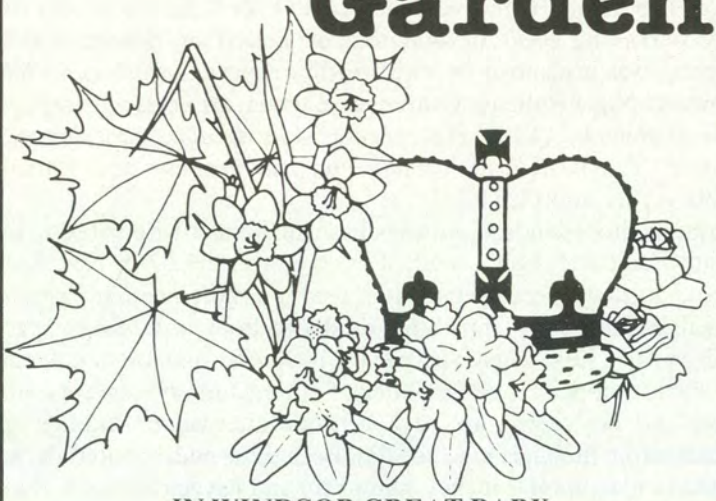

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Renovating the rhododendron collection in the Royal Botanic Garden, Edinburgh

R. D. SHAW, NDH

Rhododendrons are such attractive subjects that it is a shame to write about them at all in derogatory terms, but there are things to tell about the debit side as well as the credit side of this account.

To be honest, the collection at Edinburgh is not being rescued and disturbed (decimated, some say) just to satisfy the whims of a very few individuals, and not because the collection was arranged in a particularly interesting, educational or logical way, or because its contents were in the best of health. Not at all; the collection, its curation sadly neglected by scientific and horticultural staff, was very much due a complete overhaul.

Somerset Maugham wrote in the 1930s 'Information for its own sake is like a flight of steps leading to a blank wall'. In January 1986, Denis Trevelyan, writing an article for *The Times* stated that he recently told a careers seminar at Leeds University: 'We don't want cerebral recluses. Naked intellect is not enough. We need action thinkers - people who can get things done'. There was, and is, no lack of information on rhododendrons in the Royal Botanic Garden, Edinburgh, but well-informed botanists and horticulturists were not enough to ensure the well-being of the rhododendron collection.

To a degree, botanists and horticulturists share a tendency to be conservative and possessive. At times gardeners seem to become hemmed in by the hedges they plant and botanists lost in the corrugations of electron microscopy. Both are capable of industry and excellent work of a kind and are, mostly, content. The other few are a nuisance, those rarely satisfied who seek renewal, growth and progression. It is much more comfortable to be free from the bother of alterations, but no change and insularity can lead to stagnation or, worse, a decline and fall ... These same few would oppose the argument that in a well-established garden, especially one that celebrated its tercentenary in 1970, it is extremely difficult to find room for major developments.

Without a reference to quote, it can only be provisionally claimed that Sir William Wright Smith (Regius Keeper 1922-1956) said that an ideal,

a well-grown rhododendron, should, like a Victorian lady, have its skirts down to ankle level. Few rhododendron enthusiasts will disagree with Sir William, but to get such a plant needs space to begin with and more and more space as it grows. There must be many specimens that received proper attention - like the enormous specimen of *R.* 'Russellianum' on a lawn at Benmore for instance - but for every well-grown specimen, there must be ten badly grown, overshadowed or suppressed plants. In 1972 such a ratio existed in the Royal Botanic Garden, Edinburgh, the home of the finest collection of rhododendrons in the world.

The reason for this state of affairs was put down mainly to lack of space. It would be impossible to give all rhododendrons enough room to grow unhampered by other plants. The space required for such generous individual quarters could not be found within the 65 acres of the garden. Impossible! Yet while this objection was sustained it was not difficult to notice that within the collection there were numbers of indifferent hybrids (some not even named); some with their *ponticum* rootstock taking over, and a ridiculous level of replication to the extent of over 20 accessions of *R. wardii*. *Rhododendron rubiginosum* and other species could be seen again and again in many parts of the garden. And substantial replication was by no means limited to rhododendrons. Many other plants, woody, bulbous and herbaceous were repeated tediously (*Meconopsis nepaulensis, Bergenia, Colchicum, Primula, Spiraea, Forsythia*, etc). Replication is acceptable in ornamental gardens and bedding schemes but in a botanic garden such excesses are out of order.

Concern for the neglected rhododendrons and other scientifically worthy plant material has not been confined to recent years. Dr H. R. Fletcher (Regius Keeper 1956-1970) was concerned. His influence on the garden was immense and he brought about great changes and improvements to many aspects of botanic garden work. Dr Fletcher included rhododendrons in his many interests and furthered their cause at every level, but admitted that by July in any year - when flowers of *R. heliolepis* were fading - he was sick of the sight of rhododendrons! He encouraged to the greatest degree the work at Benmore and pressed to recreate an outstanding rhododendron collection by adding to those already there. At Benmore there was ample space to treat each plant generously and to arrange the species in taxonomic groups (Series) so that the plantations became as he himself wrote, a 'Living Textbook of the Genus *Rhododendron*". Whether or not it was Dr Fletcher's intention in the course of time to transfer most of the rhododendrons from Edinburgh to Benmore to relieve the limitations of space at Edinburgh it is difficult to say, but, in one way or another, the outations Benmore and Logan were not to be denied anything that was needed for their proper development. The long-term project at Benmore received a

severe set-back during the storm of 15 January 1968. As he recovered from the disaster, Dr Fletcher's interests at Benmore widened to include conifers and the possibility of a National Pinetum of the North.

These distractions and then the disruption of a change of Regius Keeper and Curator disturbed the rhythm of policy ('The best laid schemes ... gang aft agley'), and for some years, a number of them after the storm at Benmore, years of repair and consolidation, the pace of development faltered. New land was acquired at Benmore and other aspects of the estate work received more attention - the Formal Garden, for instance, while in Edinburgh the rhododendron policy drifted. Plants received attention but winter work programmes did little more than maintain the *status quo*. At that time there was no discernible reason for the arrangement of the borders or for the rhododendron plantings in any one border. Lepidotes, elepidotes, evergreen and deciduous species were placed cheek by jowl as if they were part of a pleasure garden. Even ornamentally they were not always well-associated. Serendipity must have played a role here and there and aided by the natural charm and colourfulness of the genus, placed in attractive surroundings, the presentation proved to be acceptable and enjoyable to most visitors.

So it was when, in 1973, Dr Cullen and Dr Chamberlain began preliminary investigations towards a taxonomic revision of the genus *Rhododendron*. The more they examined the live plants and herbarium material, the more they made use of the garden's plant record system, and the more it became obvious that the living collection was in a poor state. Plants in the garden were suppressed and ailing, or were old and dilapidated and in need of replacement, or were badly placed and often growing in competition with shallow-rooted trees. In many instances the rhododendrons were suffering from regular soil disturbances necessary to maintain herbaceous plants growing around them. Specimens that were in the garden were not included in the record system, and vice versa; many were incorrectly named.

The Curator at the time was well-aware of these shortcomings but, despite persistent promptings and persuasions, he alone could make little headway or overcome the general inertia. It was impossible to get agreement or permission to sacrifice the vegetation in some relatively run-down part of the garden to make essential space in which to start the reorganization of the rhododendron collection.

Fortunately, Dr Cullen's appreciation of practical gardening and his recent findings led him to press for changes and, with Dr Chamberlain's support, it was possible for horticulture and science acting together to sway policy. Permission was granted to clear much of the land encompassing the Old Herbarium north of the Rock Garden to make way for the first phase of an enormous upheaval; to bring together all the worthwhile lepidote rhododendrons to this new site.

By using selected material from existing crowded borders and young plants from the nursery, it was possible to arrange all the scaly-leaved hardy rhododendrons within easy access. No longer are there deep borders to peer into in search of a plant label. The plants are together in one small part of the garden for ready comparison by serious students. The intention was to include only plants of known wild origin but occasional exceptions have had to be made. For instance, no material of known wild origin is available for *R. lutescens*. Dubious material was discarded and replication reduced to an absolute minimum.

The site was designed for simple maintenance, where grass paths are confined to the perimeter. Elsewhere, access is by pathways of chipped bark which define the outlines of plant groups containing subsections such as Cinnabarina, Heliolepida and Triflora. As the plants mature and become properly spaced, it is hoped that there will be no obvious pathways. Visitors will be able to walk almost anywhere amongst the plants and view them closely.

The main part of the site east of the Old Herbarium is fairly exposed, so *R. rubiginosum*, *R. heliolepis*, *R. ambiguum* and *R. lutescens* flank the site to provide shelter within for less rugged species. The lepidote scheme extends from *R. heliolepis* in the east, by way of *R. rigidum*, *R. augustinii* and *R. oreotrephes* north of the Old Herbarium, and then westward to *R. glaucophyllum* and *R. charitopes* before drifting south via *R. lepidostylum* and *R. trichocladum* to link up with the dwarf rhododendrons of the *Saluenensia* and *Lapponica* subsections already sited in the north-west mounds of the Rock Garden.

In order to make a good impression on those attending the International Rhododendron Conference of 1981 and to avoid the raw and thin appearance of a plantation containing only diminutive nursery stock, a number of mature plants were used. Some were presentable but others were one-sided or thin and lanky. In the short term these ungainly but substantial plants will serve a purpose, but some are making such a good recovery in new sites where they are afforded light, space and a regenerated soil, that they will continue to be useful and, who knows, may yet approach Sir William Wright Smith's ideal! (see illustration of new growth). Those that fail to respond will be replaced by young stock.

An essential adjunct to the main work is an extensive propagation programme so that a fair proportion of the taxa grown will be replaced on a regular basis and, if necessary, before some plants attain maximum size. The remainder, with aesthetic as much as scientific considerations in mind, will be allowed to reach their full potential to become, perhaps, venerable but never, it is hoped, degenerate.

There is no guarantee that the new plantings will be totally successful. Diseases like *Armillaria* and *Phytophthora* could make a nonsense of it all, but by adhering to sound principles of cultivation, the installation of a

permanent irrigation system and the continued good husbandry shown by the Arboretum Department's staff since its inception, the scheme should succeed.

In the meantime the elepidote rhododendrons are receiving attention but putting them in order will take several years.

Phase two, which began the elepidote work, called for the dismemberment of The Copse, a secluded and sheltered area somewhat overgrown by 1984, which has always been a very attractive and popular part of the garden. It was a drastic step to take, turning a delightful scene and pleasing boscage into something not far removed from a battle scene at Mons, and much more adventurous than the clearance made around the Old Herbarium. In dismantling the contents of The Copse, sensitivities and rapport with regular visitors to the garden were surely strained to the limit, but patience and trust prevailed. By late summer in 1985 The Copse was restored but very wet weather (ideal for transplants!) made it unwise to re-open the area to the public. It is, however, open again this year, when visitors can see rhododendrons in subsections Glischra, Neriiflora, Fortunea and Pontica. Some grass paths will remain for those who wish to view rhododendrons casually but, for closer study, further access is possible along minor pathways of chipped bark.

A third phase began last winter (1985/86), and by early summer subsections Thomsonia and Taliensia were established in the area south of the lower Peat Walls (which are under reconstruction) and west of the recent lepidote plantings. These subsections, like those in The Copse, depend on shelter to provide a calm and humid atmosphere in which most rhododendrons thrive. Shelter is an absolute necessity for the successful culture of the large-leaved rhododendrons like *R. fictolacteum* subsp. *rex* and *R. praestans*, in subsections Falconera and Grandia respectively. Where it has not been possible to select sheltered sites for the elepidote rhododendrons, both short- and long-term provision has been made to minimize the exposure to damaging winds.

More changes and more disturbance will follow and some changes already made have come about out of chronological order because the whole business, physically, has developed into a complicated operation. The moving of plants, the timing and the need for space, affect other movements until the whole is like playing a complicated game of chess. Grappling with these problems and handling them ably in all weathers and conditions are the staff and students of the Arboretum Department under the direction and guidance of the Assistant Curator, Mr G. Broadley, and his two supervisors, Messrs G. Knott and D. Paterson. Supporting Mr Broadley's departmental work with holding accommodation for 'in transit' mature rhododendrons and with replacement nursery stock is the Propagation Department headed by

Fig. 1 *The weak growth of Rhododendron oreotrephes before being transplanted* RBG Edinburgh
Fig. 2 *The healthy, new growth of a Rhododendron rubiginosum transplant* RBG Edinburgh

Mr R. Kerby and his two supervisors, Messrs G. Kirkpatrick and I. Sinclair.

It is intended to have the widest possible representation of the genus *Rhododendron* in the Royal Botanic Garden, Edinburgh, where, in addition to hardy species, members of the Maddenia subsection and other tender species can be seen in the Temperate Palm House. Furthermore, there is a remarkable collection of Malesian (section Vireya) rhododendrons on view in the Peat House. The current reorganization, while improving the quality of the collections enormously, will reduce the total number of accessions of the genus from over 4,000 in 1973 to just under 2,000 by 1985: of these 2,000 representing 447 species, more than 80% are of known wild origin.

As there is insufficient space at Edinburgh to display the range of natural characteristics that exist within variable species such as *R. campanulatum, R. fulvum* and *R. eclecteum*, these species are planted to better effect at the outstations: the Younger Botanic Garden, Benmore, Argyll; The Logan Botanic Garden, Port Logan, Wigtownshire and Dawyck Botanic Garden, Stobo, Peeblesshire.

Another reason for this division of labour concerns the staffing levels in each establishment. Edinburgh has the highest concentration and is therefore best able to maintain the essential elements of the collection and the precise recording devices on and off the plants that validate the collection. The plant record system devised by Dr Cullen is computerized, and responsible for its operation in Edinburgh are Assistant Curator Mr R. M^{c}Beath (in charge of the Alpine and Herbaceous Department) and Scientific Officer Miss Hazel Hamlet.

Species of the 'azalea' subgenera and sections formerly tucked away in many obscure positions have also been rearranged. Singled out for special attention, but not really successful were, in one place, a group of Glenn Dale and Kurume azaleas, and close by a few large beds indiscriminately planted with deciduous azalea hybrids. Both schemes provided a crude mix of colour in spring and the deciduous azaleas contributed some foliage colour in autumn. Labels were hard to find and it was difficult to distinguish one deciduous azalea from another.

The scheme has been replaced with a design intended to be attractive and educational by illustrating, in a very simple way, the origins of the modern deciduous azalea hybrids. At the centre of the scheme is a bed of Ghent azaleas, bisected by a broad grass path. Towards the centre, beyond these hybrids are eight beds, each containing a species used in the complicated breeding of the Ghents (e.g. *R. luteum, R. viscosum, R. nudiflorum* and *R. roseum*). Further afield, but linked to appropriate species beds, are azaleas resulting from breeding programmes and selection. For instance, *R. occidentale* leads on to a group of beds of Occidentale hybrids and, appropriately, the Knap Hill plantings are

near *R. calendulaceum*. Even further afield, as an extension of the Knap Hill Hybrids, are the sought-after modern Exbury azaleas. The azalea scheme also includes a number of garden-worthy species planted in separate beds for ease of identification, and to prevent the least vigorous plants from being suppressed, which often happens in mixed beds. *Rhododendron schlippenbachii*, *R. vaseyi*, *R. albrechtii*, *R. atlanticum* and other favourites are already well-established on a brae above and south-west of the planthouses.

Dr Cullen and I believe that at Edinburgh by having drawn together, in bold groups, closely related, and therefore similar plants, a degree of harmony and appropriate scale to the components of a large garden has been achieved.

During the alterations so far, policy has dictated that, while science in a botanic garden takes first place over amenity and ornament, these two requirements must be taken into account and allowed to influence presentation. With this in mind, coupled with motivation and encouragement, the success of the Royal Botanic Garden depends on the close collaboration of horticultural and scientific staff, working to nourish and safeguard the health and wealth of an international reference collection of living plants.

The Rhododendron and Camellia Group tour in Scotland, May 1986

JANE DAVID

Some 30 members of the Group gathered on the 9 May, 1986, in Glasgow, for the start of the 1986 Tour. This was to cover some of the gardens which the Group had previously visited in 1979 but, on this occasion, the most northerly to be visited was Inverewe, and one or two other gardens had been added by the Tour Organizer, Valerie Archibold.

Saturday, 10 May, Eckford and Benmore

The first garden on the itinerary was Eckford where, in the absence of the owner, Mr Younger, the party was led round by Mr Arthur Hall, Curator of the Younger Botanic Garden at Benmore. The garden at Eckford is a prime example of the incredibly lush growth engendered by a high rainfall and equable climate of this part of Scotland. Natural regeneration has reached almost embarrassing proportions and in some places threatens to take over with natural hybrids from the original plantings. This is not to say that there are not some magnificent plants of rhododendrons of great stature, and the heavy rain did little to damp the enthusiasm as members of the Group scrambled around the steep slope discovering both species and hybrids too numerous to specify.

The next stop was just across the road at the Younger Botanic Garden, where the Group had lunch in the restaurant. Luckily the rain had eased slightly by the time Mr Hall led the way into the garden. It soon became very apparent to any member who was on the 1979 tour that a vast amount of clearing and new planting has been, and is being, undertaken. It was of great interest to see groups of the same series kept together and the health and vigour of the large-leaved rhododendrons such as *R. falconeri*, *R. sinogrande*, *R. hodgsonii*, *R. basilicum*, *R. fictolacteum*, *R. praestans* and others are seldom seen further south. It was with real regret that the party left this beautifully kept garden having presented Mr Hall with a plant as a small token of appreciation of his kindness in giving up a full day of his time.

Sunday, 11 May, Crarae

Crarae is situated on the shores of Loch Fyne facing south and with a lovely view across the loch to the hills beyond. We were met by Sir Ilay and Lady Campbell, and he told us about the garden. It is believed that the fine old larch and Scots pines were planted over 180 years ago, but

the garden was not started until the beginning of this century when various seeds were received from Reginald Farrer, who was a nephew of Sir Ilay's grandmother. It was not until 1925, when his father, Sir George Campbell, took over that the garden was developed. It consists mainly of a steep-sided glen. The soil is mainly acid, particularly suitable for growing rhododendrons and the climate suits many southern hemisphere plants. Many rare trees were planted which formed cover for shrubs. Sir Ilay has continued to plant, but owing to the increasing cost of keeping a garden like this, it was transferred to a charitable trust in 1978. Help is available from the Manpower Services Commission scheme and many projects have been undertaken, such as the making of new steps, seats, stone walls and so on.

We took the path up the west side of the glen passing *Rhododendron montroseanum* and a good group of *R. albrechtii*. We saw a large *Gevuina avellana*, the Chilean hazel of the family Proteaceae, and growing out of the riverbank was a large *R. barbatum* which, unfortunately, had been frosted, unlike one of its progeny, 'John Holmes', seen earlier, which had flowered happily throughout the frost. We saw some attractive trees of *Podocarpus salignus* from Chile. Among other rhododendrons noted along this path were *R. campylocarpum* and *R. thomsonii*.

At the top of the glen we were led to an area where we saw the devastating effect of powdery mildew, which is particularly destructive of rhododendrons in subsection Cinnabarina. We noted several Tasmanian species of *Eucalyptus* planted in 1940 which had grown well. Passing some lovely *Rhododendron schlippenbachii* we came to an area planted by Sir George in 1950 containing, among others, *R. delavayi*, a big *R. wallichii* and a good *R. niveum*. A lot of clearing is planned for next winter to open it up and provide vistas. Continuing on to the other side of the glen we passed a plant of *R. macabeanum* × *lacteum* which was being layered as it was so good. Next we came to an attractive group of snow gums (*Eucalyptus niphophila*) with their lovely mottled barks of grey, green and cream. We passed under a group of *R. sinogrande*, some leaves of which were judged to be 22 inches long.

Before we started our descent we noted a most attractive group consisting of a good pink *Rhododendron davidsonianum*, *R. piercei*, crimson; *R.* 'Peace' (*rigidum album* × *concatenans*) a pretty cream, and 'Mrs James Horlick' ('Doctor Stocker' × *thomsonii*). A group of *R. johnstoneanum* had been planted in a sheltered position on the riverbank and looked well. The weather had been kind to us, and although the sun shone only occasionally, it didn't rain. Dr Robbie Jack thanked Sir Ilay and Lady Campbell for their kindness in showing us around.

Arduaine

After lunch we drove to Arduaine on the shores of Loch Melfort. Edmund and Harry Wright acquired this property of about 24 acres in

1971, which had been very neglected since the war, and proceeded to make it one of the finest gardens in Scotland, especially noted for its collection of species rhododendrons. All the work has been performed by the two brothers. Mr Edmund Wright was most kind in taking us round the garden himself.

One of the latest jobs undertaken was the clearing of a lot of old hybrids and a very large *Pieris*. This had to be done with winches as well as pruners. A vista has been opened up to the pond and beyond, and will be kept open by the planting of low-growing shrubs on either side of the path and primulas and meconopsis in the foreground. A large *Rhododendron arboreum* subsp. *zeylanicum* had to have some limbs cut back, but it is regenerating. As we went into the wood we passed *Magnolia campbellii*, and a very large *Trochodendron aralioides*, a good *R. polylepis* and a big *R. griffithianum* with its beautiful peeling bark. Proceeding along the path we saw *R. protistum*. Mr Wright showed us where a tree had to be felled in a certain direction to avoid damaging any plants, a difficult feat. Many of the trees were planted on the edge of drainage ditches with the result that the roots developed more on one side than the other making them more vulnerable to wind-rock. We noted *R. hemsleyanum* with its wavy leaf margin, and *R. recurvoides* whose leaves have such a woolly, tawny indumentum. Having made our way through the woods we proceeded on our way to the pool, which had been enlarged and contained a statue of a heron on a rock to warn other herons off its territory, so that fish could be introduced. This ploy has worked so far. This area of the garden with its pool and lawns and borders is most attractive.

Mr Mac Speed thanked Mr Wright for giving us his time showing us around this garden so full of interesting plants.

Monday, 12 May

On the way to Dundonnell we visited Barguillean, an interesting garden near Taynuilt, not far from Dalmally. This garden was started in 1956 by Mr and Mrs MacDonald as a memorial to their son who was killed in Cyprus, and with help from another son who also runs a wholesale nursery, as well as the family farm. In the first fifteen years of the garden there were a lot of deaths among the plants owing to the cold climate experienced at 450 feet. Over 2,600 people visited the garden last year and it is intended to build a restaurant on a bluff overlooking the man-made loch. This centre would promote the history of Scottish gardens. It is due to be opened in 1988 in time for the Glasgow Garden Festival.

Many good hybrids are to be found here, among them a plant which invited some discussion, 'Ethel' ('F. C. Puddle' × *forrestii* Repens Group). It was an attractive plant with crimson flowers and similarly coloured calyx. Another hybrid noted was 'Janet' (Avalanche × 'Doctor Stocker') and, as may be imagined from this parentage, it has a

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lovely scent. Among the species there was a good *Rhododendron ambiguum*, the leaves possessing large, wide-rimmed scales, a character which distinguishes this species from *R. triflorum* which has smaller, concolorous scales. We also saw *R. campanulatum* and *R. campylocarpum* with its lovely yellow flowers.

Valerie Archibold thanked Mr Sam MacDonald for talking to us about the garden and showing us its plants.

The rest of the day was spent in getting to Dundonnell, from where we were to visit Inverewe.

Tuesday, 13 May, Inverewe

We set off for this garden in the rain and apart from a short period in the afternoon, it rained intermittently all day. We were warmly greeted by Mr Gibson, a representative of the National Trust for Scotland, who had been up all night dealing with a fire which had broken out in some houses in the village. He introduced us to the Head Gardener, Peter Clough, who had worked at Tresco on the Isles of Scilly and at Sir James Horlick's garden on the Isle of Gigha, and his assistant, Nigel Price, both very knowledgeable and interested in rhododendrons, who were to accompany us on our tour.

Inverewe is situated on a peninsula in Loch Ewe and catches all the winds that blow, but the proximity of the Gulf Stream ensures a favourable climate, practically frost-free, for growing many tender species. Before planting could be started, an anti-rabbit/deer fence was erected across the peninsula. Osgood Mackenzie started the planting of the garden in 1865, beginning with Corsican and Scots pines to form a thick shelter belt, gradually adding *Rhododendron ponticum* to form hedges. Other species of trees were then added. After about 15 years, Mr Mackenzie was able to plant eucalyptus, species rhododendrons and many tender plants. After his death in 1922, his daughter, Mrs Mairi Sawyer, continued to develop the garden until 1952 when she handed it over to the National Trust for Scotland. Mr Clough told us that last winter had been bad, but that no great damage had resulted from it. What damage had been done had been caused by salt spray and radiation frosts, causing scorched foliage.

As we walked along the drive towards the house, we passed an area which was being developed with plants from New Zealand. The drainage there was good and local stone and gravel have been used as a mulch. We noted some very fine *Eucalyptus coccifera* specimens with lovely mottled barks in strange, contorted markings. We passed a very old *Rhododendron falconeri* which looked like a large bonsai in shape. It was flowering profusely and Mr Clough was worried that its days were numbered. To try to prolong its life he proposed to remove all the flowers immediately they started to fade and would then feed the tree. Before descending the steps to the lawn in front of the house, we saw a

good *R. thomsonii* near *R. oreotrephes* and a group of *Fabiana imbricata* growing on top of a wall.

The house was built in 1936 on the site of the original one which was burnt down in 1924. The stones from the latter had been used to make a rockery on the seaward side of the lawn and this was still being developed. Beside a wall below the house there is a wide herbaceous border which is at its best in summer.

Going into the wood we passed a large *Eucalyptus gunnii*, a 30-foot high *Eucryphia* 'Nymansay', *Sequoiadendron giganteum* and *Pseudotsuga menziesii*, these being the tallest trees in the garden, and *Rhododendron rubiginosum* and *R. pemakoense*. Along the lower path were planted *Griselinia littoralis* and *Drimys lanceolata* forming a windbreak. This area is quite heavily shaded and so protected from what frost there is. *Dicksonia antarctica*, the tree fern, which grows so well in damp gullies in Australia, *Trachycarpus fortunei*, *Mitraria coccinea* from Chile, and other tender species were growing with the shade-loving euphorbias. Great interest is shown in perennial woodland ground-cover plants in this garden and there are many erythroniums, trilliums, primulas, and meconopsis among them. Inverewe also has the National Collection of ourisias, a genus of the foxglove family from the southern hemisphere, including a hybrid, 'Loch Ewe', a cross between the scarlet *O. coccinea* from Chile, and *O. macrophylla*, a white species from New Zealand.

Continuing on we noted a large *Rhododendron sinogrande* and an equally large *R. giganteum*. Much of the woodland has open areas created when trees have been blown down in gales. An especially bad storm occurred in 1983, when a windforce of 120 miles per hour was recorded, at which point the anemometer was blown away. Planting of these areas was undertaken to give new shelter to interesting plants. A valley, known as Wet Valley, was worst hit by this particular gale and among other plants to be damaged was a group of *R. yunnanense*. On the way to this valley we passed a rockface covered with *R. williamsianum* and Elizabeth giving a lovely splash of colour. At the top of the valley we saw several large-leaved rhododendrons, *Magnolia campbellii* var. *mollicomata* 'Lanarth', which comes true from seed, a good form of *R. niveum* and a group of *R. hodgsonii*. We passed *R.* 'Alison Johnstone' (*concatenans* × *yunnanense*) which flowers every year, and a white *R. yunnanense* looking well in front of *Eucalyptus coccifera*.

We went along Campylocarpum Walk towards High Viewpoint and on the way we saw many rhododendrons of this species, one of which is a selected Inverewe form. Having looked at the view of the sea we made our way down the path noticing *Rhododendron mallotum*, with its very dark brown indumentum, and on through a group of *R. arboreum* where there was some discussion about their identity, to a fairly open space which has yet to be cleared for planting large-leaved rhododendrons

against the steep sides of a rocky cliff. We had now reached the furthest point of our walk and on our way back we noted an exceptionally dark form of *R. thomsonii*, *R. neriiflorum* and the pretty pink *R. racemosum*. We saw an excellent *R. wallichii* and the original *R. hodgsonii* planted in 1870, as well as *R. wightii* and *R. meddianum* with its lovely bark.

After lunch we walked back along the drive in the direction of the garden known as Bamboosalem, passing on the way a large *Hakea sericea* as good as any seen in Australia. A lot of early planting was done in this area and there are some very tall trees including *Eucalyptus cordata*. Bamboosalem has been left in a wilder state than the rest of the garden and the paths have not been widened. On our way to the top we passed *Senecio elaeagnifolius* with its thick, buff, felted underside to the leaf, and a large, old *Magnolia campbellii* planted by Osgood Mackenzie. Self-seeding *Erythronium revolutum* covered the ground profusely. We looked at a young *Rhododendron praestans* with its flat-winged petiole and *R. smithii* with its lovely bark, before coming to a group of nothofagus.

On our way down the hill we saw a large *Rhododendron campanulatum*, *R. meddianum*, the Chinese form of *R. thomsonii* with a beautiful bark but smaller calyx, *R. sutchuenense*, and *R. argyrophyllum* with its attractive pink flowers.

We walked back to the bus through the walled garden which was the first part of Inverewe to be created by Mr Mackenzie. A great amount of soil had to be brought in mostly on the backs of both men and women, and seaweed was used as manure. The walled garden was used for growing vegetables, fruit and flowers. Grown against the wall at the back of the herbaceous border are tender plants such as lobster claw (*Clianthus puniceus*), aptly named, and *Abutilon megapotamicum* from Brazil.

Bruce Archibold thanked Mr Clough and Mr Price for spending so much time with us and for making our visit so much more enjoyable.

Wednesday, 14 May, Blackhills

We arrived at Blackhills the next morning and were greeted by Mr John Christie, who invited us to see something of the garden before lunch.

Two hours was not long enough to see the garden with such a wonderful collection of species rhododendrons, over 300, most with collectors' numbers, and many of us were unable to see it all. This is a lovely garden with its different levels and natural look.

It is difficult to do justice to the rhododendrons seen, but among those noted were a lovely *Rhododendron cinnabarinum* Roylei with deep-coloured flowers, *R. basilicum* with its short, flat-winged petiole, *R. traillianum* with brown, suede-like indumentum, and a large *R. fulvum*. Walking along a path which clung to the side of a hill we passed *R. wardii*, *R. fictolacteum*, having a rusty indumentum on the underside of

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the leaves, and *R. crinigerum* with sticky, bristly shoots. A good *R. praestans* was noted here and *R. vernicosum* which has red glands on the style.

Thursday, 15 May, Aviemore

After driving through some lovely scenery we arrived at Jack Drake's nursery which consists of beds containing many fascinating alpine and rock plants, among which was noted *Lysichitum camtschatcense* from Japan, *Jeffersonia dubia*, good for planting on the edge of woods, *Glaucidium palmatum*, a rare woodland herbaceous perennial from Japan, and *Omphalogramma souliei*, closely related to *Primula*. There were many primulas in variety, erythroniums and varieties of narcissus. Some interest was shown in a formidable looking spear grass (*Aciphylla glaucescens*). Having had a look at the plants growing in the garden area, most members spent some time happily browsing through the plants for sale and finding some treasures — was there going to be room on the bus for the extra load? After lunch we drove to nearby Aberfeldy to visit Cluny House.

Cluny House

Mr R. S. Masterton, sadly, had died recently, but the family kindly invited us to see the garden as arranged. It is situated on the side of a hill above a river, and the drive is a good mile from the main road, narrow and steep in places, and our driver thought it inadvisable to take the bus up it, so some members reluctantly stayed behind. We were welcomed by one of Mr Masterton's sons-in-law, Mr Mattingley, who took us round this enchanting woodland garden of 9½ acres. Bobby Masterton was a vet and had lived at Cluny House since 1950. When he arrived, there were two very large wellingtonias (*Sequoiadendron giganteum*) and a few other trees. He received over 400 packets of seeds from the Ludlow and Sherriff expedition to Bhutan in 1948, and so the planting started. It was intended that the garden should be interesting at all times of the year and many spring bulbs were planted. Some of the rhododendrons we saw were unnamed. Some members enjoyed themselves identifying these and were given labels to attach to the plants they had named. Besides rhododendrons, there are many interesting trees, including magnolias, cotoneasters, prunus in variety and excellent woodland plants such as fritillarias, trilliums, violets, and meconopsis. Cluny House has the National Collection of Asiatic primulas and they are everywhere, especially in the wetter areas. Everyone enjoyed this garden immensely despite a heavy shower of rain and it is well worth making the effort to visit it. Let us hope that it will be maintained in the future.

Friday, 16 May, Glendoick Gardens

The garden is situated on a south-facing slope on the northern shores of the Firth of Tay — not far from Perth. It lacks the benefits of the Gulf Stream and so the climate is more severe than that found on the west

coast of Scotland. It has a rainfall of 28 inches a year. We were greeted by Peter and Patricia Cox and their son, who kindly accompanied us on our way round.

We passed the nursery beds on the way into the wood and it was good to see how well the young plants were doing in some shade provided by tall trees. We noted a great many attractive hybrids. It is difficult to list them all but one that caught the attention of many was *Rhododendron* 'Hotei' ((*souliei* × *wardii*) × 'Goldsworth Orange'), which was a very rich yellow, but the plant was not thought to be very attractive when out of flower. We noted *R. eximium* with indumentum on both sides of the leaf, *R. wasonii* and *R. orbiculare* with its distinctively coloured pink flowers. There were several plants not seen very often including *R. triplonaevium*, *R. alutaceum* var. *russotinctum*, both of subsection Taliensia, and *R. tatsienense* of subsection Triflora, Yunnanense agg. We noted *R. glaucophyllum* var. *tubiforme* with its tubular corolla and *R. bureavii* with its thick, dark indumentum. We passed a group of *R. argipeplum* sown from one packet of seed collected by a Taiwanese botanist and each plant was different. At the top of the wood, Peter Cox pointed out some rhododendrons sown from seed collected by one of our members who was with us, Tom Spring-Smyth, from the Milke Danda in east Nepal, including *R. campanulatum* TSS8, a good form with an excellent *indumentum and R. hodgsonii* TSS9. Having looked at so many interesting plants time was running out so we made our way back to the house noting *R. hirtipes*, *R. ciliatum* BLM 324 (a tender species with bristly shoots and white flowers), *R. luteiflorum*, a tall *Acer griseum*, the paperbark maple, with old bark peeling off to reveal the beautiful cinnamon-coloured underbark, and *R.* 'Conroy' (*cinnabarinum* Rroylei × *concatenans*), a fine hybrid with orange flowers flushed apricot-red.

There was hardly time to see the borders near the house where many dwarf rhododendrons were growing, before Bruce Archibold expressed our thanks to Peter Cox for being with us.

This was the last day of our tour and our thanks and appreciation were voiced to our hard-working Hon. Tours Secretary, Valerie Archibold, for organizing it so well.

The beginnings of Rhododendron growing and hybridization in Britain

MAJOR E. W. M. MAGOR

In *Rhododendrons 1979-80 with Magnolias and Camellias* was published a slightly abridged version of a thesis by Lawrence Mills on the early history of the introduction and cultivation of rhododendrons in Britain. In it he records that the first rhododendron species known to be grown here was the alpine *R. hirsutum*, thought to have been introduced by the Huguenots, and recorded as growing in the Tradescants' garden at Lambeth in 1656. Other early introductions of European species were *R. ferrugineum*, also from the Alps, in 1739; *R. ponticum* from Gibraltar in 1763 and later from the Black Sea region; *R. dauricum* from Siberia in 1780; the yellow azalea, *R. luteum*, from the Caucasus in 1792; *R. chrysanthum* from Siberia in 1796; *R. camschaticum* from Kamchatka in 1799 and *R. caucasicum* from the Caucasus in 1803.

The North American species were only a little later in time. In 1680, the Bishop of London was sent a plant of the swamp honeysuckle, *R. viscosum*, by an English missionary in Virginia. Other early introductions of deciduous azalea species were *R. calendulaceum* in 1730, and *R. canescens* in 1734. The first evergreen rhododendron species, *R. maximum*, was introduced two years after that, *R. minus* in 1786 and *R. catawbiense* in 1809. From Canada came the azalea *R. canadense* in 1767, and the dwarf *R. lapponicum* in 1825.

From India, the first introduction was *R. arboreum*, first reported from Kashmir in 1796, but there is no authentic record of its introduction before 1817. *Rhododendron campanulatum* followed in 1825, *R. barbatum* in 1829, and *R. formosum* from Assam in 1843.

From China, the deciduous azalea *R. molle* was introduced in 1823, and in 1855 Robert Fortune, sent out to introduce the tea plant, brought back seed from eastern China (Chekiang province) of a rhododendron which Lindley named *R. fortunei* after him.

Of the Malesian (Vireya) species, *R. brookeanum*, named after Sir James Brooke, the Rajah of Sarawak, was sent from Borneo in 1845, and the following year, Thomas Lobb sent *R. javanicum* and *R. jasminiflorum* respectively from Java and Sumatra.

The first hybrid recorded was an Azaleodendron, a chance hybrid between *R. calendulaceum* and *R. ponticum*, which occurred in

Thompson's Mile End nursery at the turn of the nineteenth century and by 1814 a plant of this was in the collection of the Royal Botanic Garden at Edinburgh, listed as '*R. subdeciduum*, Thompson's Hybrid'. Purposeful breeding began with *R. maximum*, *R. catawbiense*, *R. ponticum*, and *R. caucasicum*, and a little later *R. arboreum*. One of the earliest hybridists was the Revd William Herbert, Rector of Spofforth in Yorkshire, later Dean of Manchester, who was the author of *Crosses and Hybrid Inter-mixtures amongst plants*, as well as a monograph on the Amaryllidaceae and a classification of the genus *Crocus*. Dean Herbert produced a number of Azaleodendrons, as well as interspecific hybrids between the evergreen rhododendron species. This inspired his elder brother, the Earl of Carnarvon, to institute extensive experiments at Highclere Castle in Berkshire under the supervision of Mr J. R. Gowen, who later became Secretary of the Royal Horticultural Society, and after whom *Cupressus goveniana* and other plants have been named. Here was produced the well-known holly *Ilex* × *altaclerense* (*I. aquifolium* × *perado*), as well in 1826 as *R.* 'Altaclerense', a hybrid between *R. arboreum* and a *catawbiense*/*ponticum* cross.

There is some difference of opinion whether the well-known massive 'Cornish Early Red' of Cornish gardens (which I have seen as far afield as in the garden of the old Emperor's Summer Palace at Petropolis on the coast north of Rio de Janeiro in Brazil), is *R.* 'Altaclerense', or 'Russellianum' (*arboreum* × *catawbiense*), made at Russell's nursery in Battersea probably the same year, as is generally supposed, or perhaps 'Smithii' (*arboreum* × *ponticum*), made by William Smith, gardener to the Earl of Liverpool at Coombe Wood, Kingston on Thames, which later became Veitch's nursery. Dean Herbert also produced the low-growing, early-flowering hybrid 'Jacksonii' (Venustum), by crossing *R. arboreum* with *R. caucasicum* in 1833. The reverse cross, made by the elder Anthony Waterer at Knap Hill in the previous year produced the well-known 'Nobleanum', which flowers at Christmas.

This marked the beginning of the era of the hardy hybrids, a race of nursery-bred rhododendrons, mostly many generations removed from the wild species, which are very hardy, flower mostly in late May or June, tolerate exposure and full sun, and have firm, upright, many-flowered trusses in a wide range of colouring. By the early 1850s, many such hybrids were being offered by Standish & Noble at Sunningdale, and the Waterer firms at Bagshot and Knap Hill. By 1900, the development of the old-style hardy hybrids had more or less run its course, and hybrids started to appear with *griffithianum*, *thomsonii*, or *fortunei* in their parentage, notably 'Pink Pearl' from J. Waterer in 1897. Volume I of J. G. Millais' *Rhododendrons* (1917) listed (pp. 34-45) 484 hardy hybrids raised in Europe and then obtainable, of which 292 originated with the two firms of Waterer at Bagshot and Knap Hill.

Meanwhile, Dr Joseph D. Hooker, son of Sir William Hooker, the Director of the Royal Botanic Gardens at Kew, had visited Sikkim between 1847 and 1851, and had sent back seed of three of the four Indian species already known, as well as of another 40 new species which he had described and illustrated (though not all now recognized as distinct species), including *griffithianum*, *thomsonii* and *cinnabarinum*, which have since played an important part in subsequent hybridizing. The first *griffithianum* hybrids were produced by Lawson of Edinburgh, who crossed it with a hardy hybrid.

Hooker persuaded friends in the west of Scotland, Wales, and south-west England to grow on rhododendron seedlings raised at Kew from the seed that he had sent back from the Himalayas. Among the friends in Cornwall were the Shilson family at Tremough, whose gardener, Richard Gill, began hybridizing and produced some of the finest of the early interspecific hybrids, notably 'Shilsonii' (*barbatum* × *thomsonii*), A.M. 1900, 'Duke of Cornwall' (*arboreum* × *barbatum*), A.M. 1907 and 'Ernest Gill' (*arboreum* × *fortunei*), A.M. 1918. His finest hybrid, however, has been 'Beauty of Tremough' (*griffithianum* × blood red *arboreum*), made in 1893, which was awarded an F.C.C. at the Truro Show in 1902. Seedlings of this were sent to other Cornish gardens and to Sir Edmund Loder at Leonardslee; clones of this hybrid range in colour from the white with a slight pink flush of 'Trebah Gem' to 'Gill's Triumph' with large crimson-scarlet flowers, and different clones have been awarded one F.C.C. and five A.M.s; one from Bodnant as recently as 1981 as 'Treetops'. The cross however had been made previously in other Cornish gardens; first at Heligan where clones were called 'John Tremayne' and 'Mrs Babington'; at Tregrehan as 'Carlyon's Hybrid', and at Scorrier as 'Scorrier Pink'. The Rhododendron Society's *Notes for 1927* contains a detailed article by the Hon. H. D. M^{c}Laren on Richard Gill and his hybrids.

Another recipient of Hooker's seed in Cornwall was Robert Were Fox at Penjerrick, whose gardener Samuel Smith produced a number of good hybrids, including 'Penjerrick' (*campylocarpum* × *griffithianum*) and 'Cornish Cross' (*griffithianum* × *thomsonii*), as well as 'Werei', of the same parentage as Gill's 'Duke of Cornwall'. For his work in hybridizing rhododendrons, Samuel Smith was awarded the Veitch Memorial Medal. Mr M^{c}Laren also contributed an excellent article on Penjerrick and Samuel Smith's hybrids in The Rhododendron Society's *Notes for 1928*.

Outside Cornwall, Mr James Mangles (1832-84) at Valewood near Haslemere in Surrey, who became known at the time as 'the High Priest of the Rhododendron Cult', was a very active hybridist, and raised some very good hybrids, using *R. griffithianum* in particular as a parent. On

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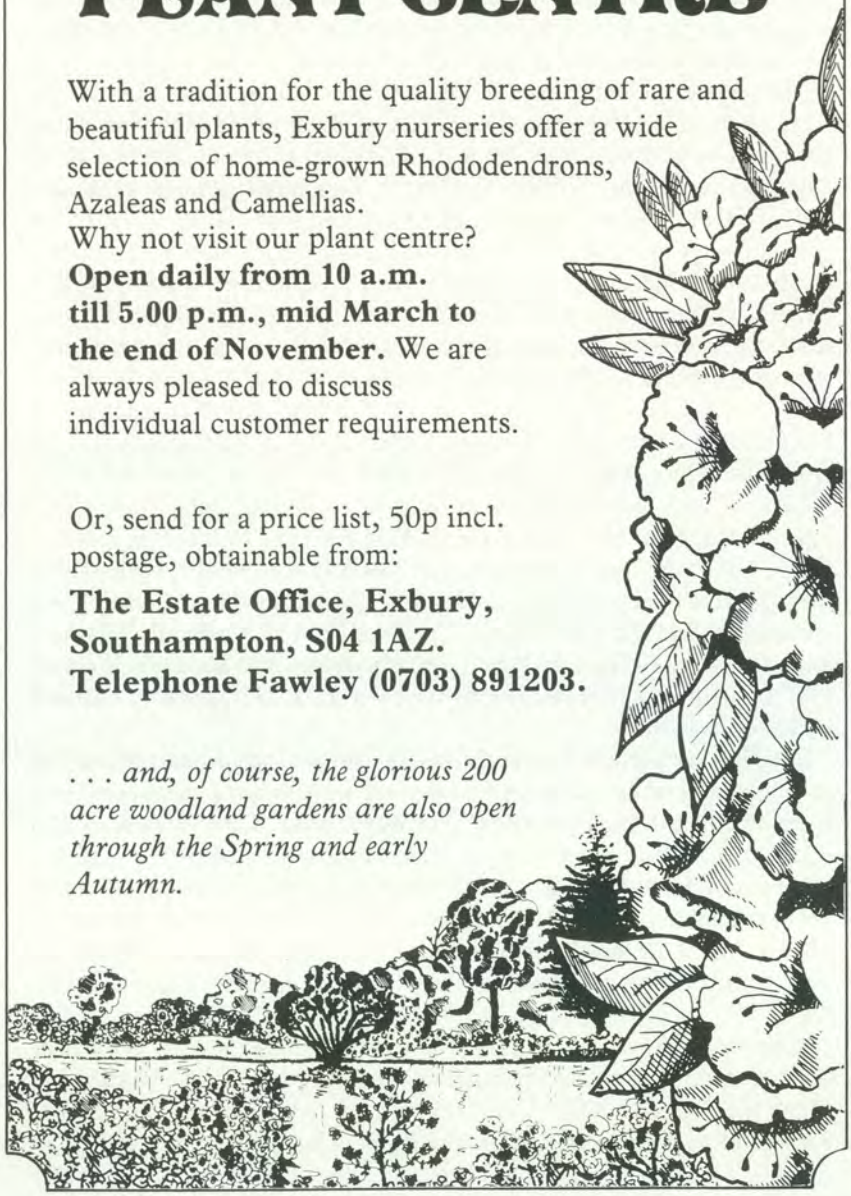

his premature death, his seedlings passed to his brother and sister at Littleworth near Farnham. Just before his death, he sent several of his *griffithianum* hybrids to his friend Mr F. D. Godman at South Lodge, Horsham, who grew them on in a cold greenhouse, and one proved to be of remarkable beauty. When it grew too large for the greenhouse, branches were cut off, from which Sir Edmund Loder, across the road at Leonardslee, made numerous grafts of the cuttings, and these were widely circulated as 'Loder's White', a very fine white hybrid. On James Mangles' death, his mantle rather fell on Sir Edmund Loder (1849-1920), who crossed *R. griffithianum* with almost every rhododendron likely to produce good results, and in the process produced many good hybrids, including the superb Loderi, of which the seed parent was a good form of *R. fortunei* at Leonardslee, and the pollen parent was a particularly good form of *R. griffithianum* in the greenhouse across the road at South Lodge; this first flowered in 1907. The cross had originally been made at Kew as far back as 1875, and registered in 1888 as Kewense, but this does not compare with Loderi in quality. Even earlier, Luscombe at Coombe Royal in south Devon had crossed *R. fortunei* with *R. thomsonii*, to produce Luscombei in 1880, still a very good hybrid, its best clone perhaps being 'Pride of Leonardslee'.

A new era for rhododendrons opened with the advent of Chinese rhododendron seed at the beginning of the century, though it is interesting to note that even the best of the new hybrids still contain in their ancestry blood of the Himalayan species, *arboreum, thomsonii* and *griffithianum*. Twenty years after the introduction of *R. fortunei*, the French missionaries, David, Delavay and Farges had sent back material of rhododendron species from western China, and these were described and named by the French botanist Franchet. In 1899, Ernest Wilson, working for Messrs Veitch, visited west Hupeh and sent back seed of 12 species of rhododendron, including *R. fortunei* again. On subsequent expeditions to Szechuan and Hupeh over the next six years, he collected seed of a number of new species, and James Veitch distributed seedlings of 31 species collected by Wilson under 49 seed numbers.

Between 1909 and 1911, Mr J. C. Williams of Caerhays Castle in Cornwall distributed seed collected by Wilson of 28 rhododendron species under 35 seed numbers. He also backed George Forrest's 1910 and 1912-14 expeditions to northeast Burma and Yunnan, and personally made up the packets and distributed the seed of 42 species collected by Forrest.

The Rhododendron Society had been started in 1915, initially with 18 members and with Mr Charles Eley as Secretary. Early numbers of the Society's annual *Notes* contain records of these new Chinese species being grown in Cornwall, and by 1920, records of the flowering of some of their crosses with Himalayan species began to appear, Oreocinn and

Ambkeys being the first. That year, notes began to appear from Major Lionel de Rothschild, M.P., who bought Exbury in 1918, who had been elected to the Rhododendron Society two years later, and had started hybridizing almost at once.

The Hon. H. D. M^{c}Laren was elected to the Rhodendron Society in 1923; he had started to plant rhododendrons in his mother's garden at Bodnant in 1909, and in the 1924 and 1925 *Notes*, he contributed a very good article describing how some of Wilson's Chinese species were thriving there.

Lionel de Rothschild and Henry M^{c}Laren each paid regular visits to Cornwall every spring for a number of years, as also did Colonel Stephenson Clarke from Borde Hill, and later J. B. Stevenson from Tower Court, and all four bought freely for their gardens any young rhododendrons available, in many cases new unflowered hybrids. Rather earlier, the Loder brothers had done the same (Sir Edmund from Leonardslee and Gerald from Wakehurst), and in this way many crosses initiated in Cornwall were later registered and exhibited from other gardens where they had been raised. Other visitors to Cornwall, not quite so frequent, were Sir Frederick Moore and Armytage Moore and Lord Headfort from Ireland, and Lord Stair from Scotland, and in this way the Cornish rhododendron hybrids spread all over the British Isles. Not realizing at the time that open-pollinated seed, and hybrid seed would not come true, my father also sent seed for a number of years to Gable in the U.S.A., Hobbie in Germany and Wada in Japan.

In 1927, the Rhododendron Association was formed with a much wider memberhsip, with Lionel de Rothschild as President and this lasted until 1939, when it was taken over by The Royal Horticultural Society. Henry M^{c}Laren became President of The Royal Horticultural Society in 1931, and in 1934 he succeeded his father to become the 2nd Lord Aberconway. During the period up to the outbreak of the 2nd World War, Bodnant and Exbury dominated the rhododendron scene in Britain, and in particular the annual Rhododendron Show, which the Rhododendron Society had started in 1926, and between them these two gardens registered and received awards for numerous new hybrids. In 1930, the RHS Rhododendron Trials began at Exbury, to be transferred to Wisley in 1938. Lionel de Rothschild died in 1942, at the relatively early age of 60; Lord Aberconway lived on until 1953. Happily their sons have continued the rhododendron tradition at these two, now famous, gardens.

Major A. E. Hardy

G. DONALD WATERER

At the age of 92, Arthur Evelyn Hardy died peacefully and almost imperceptibly at his home at Sandling Park near Hythe in Kent, on 16 May, 1986, in the presence of his son, Alan. It was as if the grandfather clock had ceased to tick.

He was born in London in 1893 and educated at St Peters, Broadstairs, and Eton. He entered the Coldstream Guards *via* Sandhurst and was wounded in France in 1914. He returned home and was sent to the Guards Depot. When war broke out in 1939 he was sent again to the Guards Depot where he remained until 1944.

In 1918, he married the delightful Nancy Marion Devas who predeceased him by two years. They were inseparable. There were two children, a girl and a boy.

Sandling Park was purchased in 1894 from the Deedes family and Arthur's father, Laurence, became interested in rhododendrons in 1900. At an early stage, the family decided to open their garden in aid of the National Gardens Scheme and Kent Social Services. Soon after World War II had ended, the gardens were opened annually in aid of the National Gardens Scheme, with a gift bowl for the Gardeners' Benevolent Fund. To Arthur it was always a matter of pride and joy that year by year an ever-increasing number of people visited Sandling.

Most of the rhododendrons there originated from the Waterer Nurseries at Bagshot and Knap Hill and from the Slocock Nursery at Goldsworth in Woking. Among his many lovable qualities, Arthur endeared himself to many a nurseryman by his devotion to the 'Hardy Hybrids' which many of them had raised. With the words, 'too much like *ponticum*' ringing in his ears, he was quick to extol the merits of 'Fastuosum Flore Pleno' and 'Blue Peter' when the lavenders and near-blues were out of fashion. Having a son who was an ardent 'species man' did not lessen his devotion to the ever-popular 'Pink Pearl' and 'Cynthia'.

He was invited in 1955 to join the Rhododendron Committee of The Royal Horticultural Society. I, too, was invited to become a member in that year and from that date I was privileged to be on friendly terms with him. Mrs Hardy had served on Floral A Committee since 1946 and remained an active member until her death. I remember especially

strolling with him and his wife among the rhododendrons in the Trial Ground at Wisley, after the day's judging had ended. It was a pleasure to hear their quiet and unprejudiced comments. To his colleagues on the Committee, Arthur was known as 'the Major'. The Royal Horticultural Society bestowed on him their much-coveted award, the Victoria Medal of Honour.

He produced many good *Rhododendron* hybrids, among them:

'Sandling' ('Lady Bessborough' × *souliei*) A.M. 1965
'Saltwood' (*griersonianum* × 'Lady Clementine Mitford') A.M. 1965
'Postling'
'Coldstream'
'Pedlinge' (*decorum* × 'Loder's White' A.M. 1967

His wrath was not easily aroused. The sight of a *ponticum* sucker flouting its presence at the base of a grafted deciduous azalea was one of the few things which caused his eye to flash and his moustache to bristle. He was a useful cricketer and a very fine shot, two talents which most owners of large country estates are glad to possess.

My wife and I remember with particular pleasure a visit to Sandling many years ago. First, there was a walk among the rhododendrons, which were in full flower, and a stealthy look at a special area where Alan was going berserk among his species. After lunch we were taken to a small and very special valley garden nearby, full of choice trees and shrubs, which was gradually being restored after some years of neglect. It was obvious that Arthur loved this place and that his feelings for it must have been akin to those of George Forrest when he plunged into some Chinese Garden of Eden. 'Bet you can't name that one', Arthur challenged, pointing to some obscure shrub.

'*Xanthoceras sorbifolium.*' The awkward syllables, to my great surprise, fell instantly from my tongue after a brief acquaintance thirty years earlier in James Marchant's nursery.

'Good God!,' said Arthur, turning to his wife, 'he's got it'.

Arthur was not a businessman. To haggle was not part of his nature. He left all that sort of thing, luckily for him, to his forthright and ebullient son, Alan. He was, in the Chaucerian sense, a British gentleman.

May he fare well.

Rhododendron, camellia and magnolia notes

Peter Cox placed honey fungus, *Armillaria mellea*, eighth in his list of 'hazards'; in my list it has to be number one, as at Chyverton it has been responsible over the past sixty years for the death of a great number of rhododendrons.

However, I am hopeful that copper carbonate will prove to be an effective antidote to the scourge. An easily applied powder, I have yet to lose a rhododendron from honey fungus since it was recommended to me four years ago. My method of use is as follows:

A handful or two of the powder is mixed in with the soil on planting; all plants growing in areas where the fungus has previously struck have had a liberal top-dressing; it has been scattered over all tree stumps and areas from which tree stumps have been removed in the past; and similar treatment is given over a wide area surrounding any of the characteristic toadstools. If any plant looks sick, I expose its root crown, and if there are signs of the fungus, it, and its root run, will be given a considerable dose.

The most dramatic recovery has been shown by an old maple; a lot of dead wood, half its crown rotten, and the tell-tale bootlaces climbing up its trunk added up to its days being numbered. Three years after treatment all traces of the fungus have gone, and the tree is making good growth.

Having disposed of honey fungus, my rhododendrons are now threatened by rust and powdery mildew.

Rust has been in the garden for some years, but has yet to be a serious problem except on cinnabarinums and their hybrids. I apply a scorched-earth policy with any plant that is heavily infected; this drastic regime followed a visit to the garden by an American plant pathologist. He told me that healthy plants were likely to become infected if near diseased specimens, and advised me to remove a badly infected *blandfordiiflorum* growing in the midst of a number of other varieties of *R. cinnabarinum* only slightly infected; all trace of rust disappeared from these once the 'carrier' had gone up in smoke.

I have adopted the same policy with powdery mildew. This appeared last year on some *cinnabarinum* hybrids; especially badly infected were two forms of Royal Flush and Lady Chamberlain; despite their

undoubted beauty, these have now gone, together with lesser brethren. The species in the area are showing little sign of the disease as yet, thereby showing an inborn resistance; the saving of these is of historical importance, as all have their collector's numbers attached to them except for a group of Roylei, which have a remarkable, if not unique, pedigree: introduced Hooker, raised Sir Charles Lemon.

Lesser hazards are various living creatures. Caterpillars that delight on the leaves of *mallotum*, tits that get their protein by attacking the sexual parts of any rhododendron or single camellia that is unwise enough to flower in March. No deer to worry about, but the rabbit is back, joining slugs in the molestation of young magnolias.

But of all the living creatures that trouble me, the worst is found within *Homo sapiens*. I am happy to cope with all that the weather throws at me, but I cannot stand the common thief. How anyone can enjoy their garden when all the best plants in it are stolen defeats me; it is this selectivity that I find so disturbing, as nearly all the plants that have been filched have been first clones, most of them unobtainable from the trade; my thief, or thieves, is/are, experts.

To end on a lighter note; man the taxonomist is an irritant that I find barely tolerable. In these days of high unemployment, of an ever-shrinking work force, taxonomists seem to increase like rabbits; each new arrival must make his mark by proposing some preposterous name change. The final straw arrived in this morning's post; a letter advising me that the much-admired specimen here of *Dacrydium franklinii* should be labelled *Lagasostrobus franklinii*. 'What next?' I ask!

NIGEL HOLMAN

When Peter Cox mentions roe deer and the damage they can do, he rightly calls them devils – not content with browsing from the new foliage of both rhododendrons and camellias, the 'in velvet' bucks can quite easily debark a plant in a very short time, resulting, of course, in the death of that plant. The only sure method of protection is to enclose the whole garden in a 15-foot-high wire fence, preferably electrified, as John Kelly has done at Abbotsbury. This is not normally a financially viable project for those of us who have gardens of over, say, three acres.

In Devon, and maybe in other parts, the use of human hair hung in bunches from plants to be protected is said by some to be effective, although the aesthetic effect must leave much to be desired and, unless one happens to have a friendly local barber, the question of supply must raise problems. Another form of protection is said to be the use of a creosoted rope laid on the ground around each plant – but who wants the delicious scent of *R.* Loderi, *R.* 'Polar Bear' and their parents *et al.* marred by the strong smell of creosote? Has anyone come up with a

foolproof form of protection? If not, it seems that we must live with our deer, and it must be admitted that one has a sneaking regard for these lovely creatures seen at first and last light, and to be rather pleased that they see fit to grace one's garden.

BRUCE ARCHIBOLD

Book review

Rhododendron Hybrids: A Guide To Their Origins by Homer E. Salley and Harold E. Greer. 438 pp. Illus. Batsford 1986. £45.

The purposeful breeding of rhododendron hybrids has been going on at least since 1826, the first inter-continental hybrid, 'Altaclerense', being recorded in 1831. Over the years however, the same name has been given on a number of occasions to hybrids of quite different parentage, and equally the same hybrid has received more than one name. In a number of instances, the same hybrid has received awards under more than one name, even in recent years. It is only since 1958 that the *International Register of Rhododendron Names* has been in existence, where the distinction is made between a grex, or cross between two parents, and the different seedlings or clones, arising from that cross. In the case of many of the older hybrids, an award was given to the original cross (the grex), and separate clonal names have not been recorded.

Since 1958, The Royal Horticultural Society, as the International Registration Authority, publishes an annual list of new registrations of rhododendron names, both of hybrid clones and of names for species cultivars. A revised register is in preparation.

Over the last few years, Dr & Mrs Homer Salley of Grand Rapids, Ohio, have been going through the old lists of hybrid names from various countries, and checking where possible with anyone with access to the old records, the hybrids' parentage and any other available particulars.

Batsford now presents the resulting research, and this is the most complete record of rhododendron hybrid names at present available, a Stud Book in fact, and it is therefore a publication which rhododendron growers will wish to possess.

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This information is amplified in appendices:

Appendix A gives the current authentic name of each species involved in the parentage of the hybrids recorded.

Appendix B is a list of the hybridizers, raisers and registrants of the hybrids recorded.

Appendix C is a list of selected named forms of species, including cultivars which have received clonal names.

Appendix D contains some 1,200 names of hybrids of uncertain parentage, giving their colour where known, and raiser's name.

Appendix E lists some 280 hybrids raised by Mr Weldon E. Delp of the Crystalaire Rhododendron Foundation, Pennsylvania. These include a hybrid on which he seems to have bestowed the name 'Electra', the name of an unrelated Exbury hybrid, which received an A.M. in 1940.

Appendix F lists the names of colours from the table of cross-references from the RHS Colour Chart.

Appendix G contains some 28 late additions.

There are three pages of illustrations of rhododendron leaf and flower shapes, reproduced by courtesy of Mr A. F. George from the Hydon Nursery catalogue. There is also a short bibliography.

There are 600 colour illustrations, mostly from the collection compiled by Mr Harold E. Greer and his father, the late Mr Edgar Greer of Eugene, Oregon. Illustrations of hybrids originating in the United Kingdom are mostly from this source. About eighty hybrids made by Dr David G. Leach, author of *Rhododendrons of the World*, are illustrated by his own photographs. These hybrids have been reproduced in quantity by micropropagation, and are now available commercially. There are also a dozen or so photographs by Mr Weldon Delp, including some of his hybrids not contained in Appendix E.

E. W. M. Magor

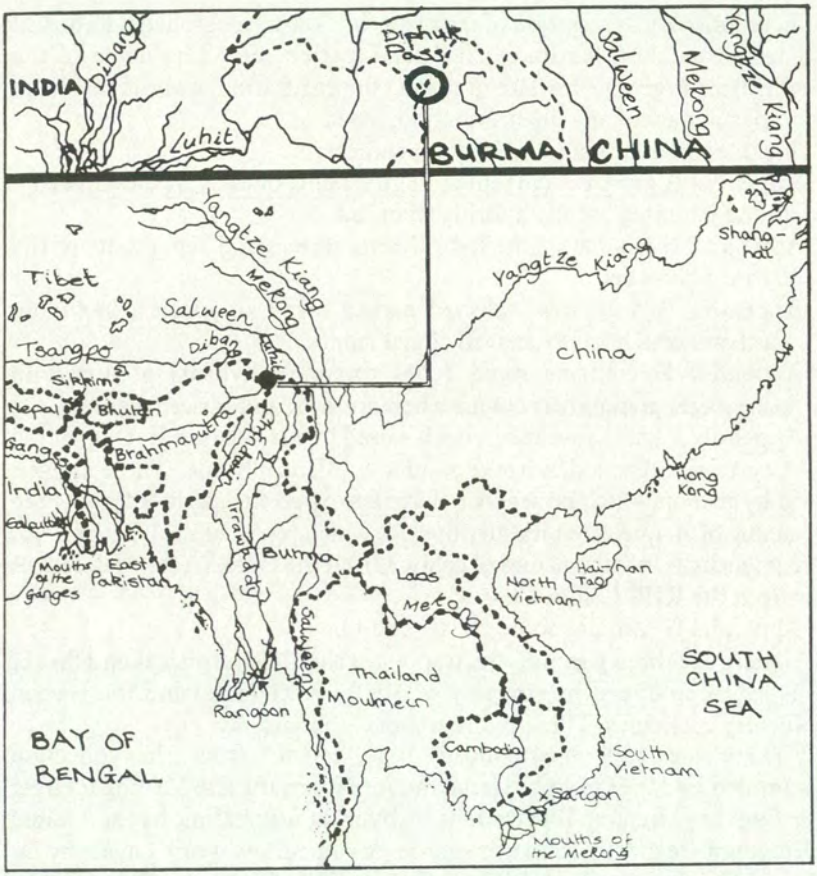

Fig. 3 Sketch map to show the position of Tibet and Burma, and, in greater detail, the Diphuk La region.

The missing rhododendrons of Diphuk La

MAJOR E. W. M. MAGOR

New paperback editions of several books by well-known plant collectors were published in 1985, by two London firms, Waterstone and Cadogan Books, and I am indebted to Father Christmas for books by E. H. Wilson, Reginald Farrer, Frank Kingdon Ward, F. S. Smythe and Patrick Synge. Furthermore, the cold spell in February, which caused me to travel to London and back by train instead of driving, gave me an unexpected opportunity to read them.

Of particular interest from the point of view of rhododendrons were two books by Frank Kingdon Ward, one from each publisher, and these were especially relevant as last year was the centenary of his birth, and his widow has become an honorary life member of the Rhododendron & Camellia Group. *The Rhododendron Handbook 1980* lists rhododendron seed collected by Kingdon Ward on 18 expeditions between 1913 and 1956, and he wrote at least ten books about his plant collecting in the eastern Himalayas and western China.

The two books that I have been reading have been *Plant Hunting on the Edge of the World*, first published in 1930, and dealing with expeditions to northern Burma in 1926 and to north-east Assam two years later; and *Plant Hunter's Paradise*, first published in 1937, describing his 1931 expedition to Upper Burma and the Tibetan Frontier.

At about latitude 28°N, within 250 miles from east to west, five great rivers flow south out of Tibet at the eastern end of the Himalayas (see map). On the expeditions described in the earlier of these two books, apart from plant collecting, Kingdon Ward's purpose was to trace the Irrawaddy up through northern Burma to its sources on the Tibetan border, and to find there what he called the 'Back Door to India' over the Diphuk La (14,280 feet) to the Lohit River, and then to follow the Brahmaputra down through Assam.

The northern tributaries of the Irrawaddy, the Seinghku and Adung valleys, and the Lohit River over the Diphuk La, proved to be fertile areas for plant collecting, and Ward found a number of new species of rhododendron, as well as many other plants, notably primulas. This is an

area which would repay further botanical exploration, as it has not been covered by any other collector, which Peter Cox realized when he was planning his 1965 expedition to northeast India, but unfortunately his efforts to get there were frustrated, as he related in the 1966 *Rhododendron and Camellia Yearbook* at pp. 61-77.

Taking as typical the Seinghku Valley in the extreme north of Burma, and the Mishmi Hills in the north of the North East Frontier Agency of Assam, or Arunchal Pradesh as it is now known, Ward describes the sequence of vegetation from the lowest valleys to the alpine tops. The valleys are filled with sub-tropical jungle where hardly any light penetrates; the ground is covered with mosses and ferns, but the tall trees carry a wealth of creepers and epiphytes all pushing up to reach the light; these include some rhododendrons, notably members of the Maddenia Section, and the Pseudovireya Subsection, which used to be known as the Vaccinoides Series.

The next higher zone, where snow falls in winter, is temperate rain forest, from 6,000 to 9,000 feet above sea level, and is dominated by species of birch, holly, hornbeam, maple and oak, and epiphytes abound on these and on the rocks. Two thousand feet higher, where there is much more snow, the forest at 10,000 to 12,000 feet is composed almost exclusively of conifers, with an undergrowth of rhododendrons with stunted birch and willow. In the Adung Valley, the conifers grow in zones; between 8,000 and 9,000 feet the Himalayan blue pine, *Pinus wallichiana*, meets the Himalayan hemlock, *Tsuga dumosa*, and 1,000 feet higher this in turn gives way to the Himalayan silver fir, *Abies spectabilis*. Emerging from the forest at an altitude of about 9,000 feet into high meadow with scattered thickets of rhododendron, and then through scrub composed almost entirely of rhododendron, one passes up to the alpine region, where there is a wealth of alpine plants, which include many species of dwarf rhododendron.

What I found of particular interest in this account was the number of rhododendron species encountered, out of a total of 120, of which in most cases seed was collected, but which are nevertheless not known to be in cultivation - 'Q'. In some cases, they are too tender, or for other reasons not suited to the conditions in areas where rhododendrons are cultivated.

Notably:

R. asperulum Hutch. & Ward KW 6801 (type) ss. Pseudovireya Q. Up to 6,000 feet as an epiphyte in temperate rain forest in the Seinghku Valley.

R. cerinum Balf. & Forr. (syn of *R. sulfureum* Franch.) ss. Boothii H2-3. Associated with *R. lindleyi* and *R. bullatum* as an epiphyte at 7,000 to 8,000 feet in temperate rain forest.

R. concinnoides Hutch. & Ward KW 8227 ss. Monantha Q. Epiphyte at 9,000 feet in temperate rain forest, particularly in old fir trees.

R. flavantherum, Hutch. & Ward KW6313 ss. Monantha Q. Epiphyte at 9,000 feet in temperate rain forest.

R. insculptum Hutch. & Ward KW 6735 ss. Pseudovireya Q. A small, deep yellow epiphyte at low altitudes.

R. microphyllum J. J. Sm. s. Vireya ss. Linnaeoidea Q. Ward describes a Lapponicum, and it appears that *paludosum* (syn. *nivale*) was intended.

R. mishmiense Hutch. & Ward KW 8113 and 8592 ss. Boothia - now treated as a form of *boothii* Q. One of the best of the epiphytic species at 8,000 to 9,000 feet. Ward said 'will probably respond to kind treatment in England ... will delight the heart of the horticulturist'; has a most effective mechanism for cross pollination.

R. monanthum Balf. & W. W. Sm. Forr. 951 (type) ss. Monantha Q. Epiphytic with small, solitary, yellow flowers, from the Tsangpo Gorge to the Mekong at 10,000 to 12,000 feet. Cox (*Larger Species*) comments 'surprisingly never introduced'.

R. notatum Hutch. KW 7630 (a form of *R. dendricola* Hutch., ss Maddenia Q. Winter flowering epiphyte growing as low as 4,000 feet in subtropical forest in the Seinghku Valley.

R. pankimense Cowan KW 11378 (a form of *R. kendrickii* Nutt.) ss Irrorata H2-3. One of the most plentiful species in the Adung Valley in the upper reaches of the Irrawaddy, from 4,000 feet to 8,000 feet, in association with *R. magnificum* at the lower altitudes.

R. sigillatum Balf. & Forr. F. 14145 as *dryophyllum*, now *R. phaeochrysum* var. *levistratum* Balf. & Forr. ss Taliensia H4. A low-growing plant in rhododendron scrub in the upper Seinghku Valley.

R. suaveolens Sleum. ss Solenovireya. White, sweetly scented. Ward has used this name for a bright purple, aromatic Lapponicam KW 6960 (*R. tapetiforme*, also shown as *R. luridum* with KW 7048 (*R. rupicola*).

Unless stated (type) collectors' numbers are all seed numbers.

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Vireya rhododendron hybrids: an adventure in variety

ELIZABETH G. WILLIAMS* and JOHN L. ROUSE**

In the genus *Rhododendron* some 270 species form a distinct section, Vireya, which is distributed through the predominantly tropical regions of Malaysia, Indonesia, the Philippines, Borneo and Papua New Guinea. These species are found mainly between latitudes 10°N and 10°S at altitudes ranging from sea level to about 13,000 feet, with a few occurring as far north as Taiwan, and in the south one species, *Rhododendron lochae*, native to the coastal mountains of north Queensland in Australia. In tall forests Vireyas may be found as epiphytic shrubs on larger trees, although the same species also occur on the ground in cleared areas. At higher altitudes they occur in profusion on the ground, forming a shrubby ericaceous forest, and in extreme montane conditions may be low bushes, mats or alpine bog plants. The range of altitude-related climate zones to which Vireyas are adapted has been graphically described by Dr R. M. Withers (1983) in the yearbook for 1983/4. Here it will suffice to point out that while certain species of this group are adapted to hot, humid tropical jungles, others are adapted to the periodic freezing temperatures of the high mountains or to the more temperate climates of the mid-altitude range.

Vireyas are distinguished botanically by the two long tails on their seeds. Other distinguishing features are the indumentum, a covering of microscopic surface hairs, which is composed of small scales rather than the more typical hairs found in many other rhododendrons, and a tendency of many species towards a sparse or leggy growth habit.

Although Vireyas show a range of attractive foliage types from narrow and heath-like (*R. stenophyllum*) to broad-oval (*R. orbiculatum*), it is their flowers, with their particular purity and brilliance of colour, which are the principal feature. They range in shape from tubular (*R. loranthiflorum*), to bell-shaped (*R. aequabile*), or trumpet-shaped (*R. lochae*), and in size from less than a third of an inch (*R. anagalliflorum*), to over 4 inches (*R. leucogigas*) in length. Flower colours range from white through yellow and orange to brilliant reds and pinks. There are

* School of Botany and ** School of Physics, University of Melbourne.

no true blues but two species, *R. stevensianum* and *R. atropurpureum* have magenta flowers.

Vireya species may have a defined flowering season, particularly those from the high altitude zones, but species from the lowland areas with little seasonal climatic variation may flower intermittently throughout the year. Thus, in a temperature climate such as that of Melbourne, with careful planning it is possible to have at least one Vireya in flower at any time of the year. The bright golden flowers of *R. laetum*, for example, can provide a welcome splash of sunshine in our winter gardens.

An important feature of Vireyas is their promiscuity. In contrast to many other groups of related plant species in which hybridization does not occur or is achieved only rarely and with great difficulty, many Vireya species can be cross-bred with relative ease to produce a whole new array of flower forms and subtle colour combinations. In fact, as a general rule of thumb, and with the exception of a few species in subsection Pseudovireya, any Vireya species is likely to be cross-fertile with almost any other, provided the lengths of their styles are reasonably similar. That is, pollen from a short-styled species may be unable to reach the ovary of a species with a very much longer style. In nature the species are prevented from hybridizing by their restriction to different geographical regions, different climatic zones, and presumably to some extent by the fidelity and restricted foraging of their natural pollinators. For example, white, perfumed flowers are believed to be predominantly pollinated by moths, while yellow and orange-flowered species are favoured by butterflies. Others, particularly those with red flowers may be more attractive to birds, and some have floral markings visible only in the ultra violet spectrum to which the eyes of bees are known to be sensitive. Natural hybrids do occur, however, particularly where the regions occupied by distinct species are adjacent or overlap. An example grown from seed collected from *R. saxifragoides* in Papua New Guinea by P. Kores is believed to have resulted from pollination by *R. womersleyi*. Both species are found in the same altitude zone between 10,800 and 13,000 feet.

Both amateur growers and professional horticulturists have been hybridizing Vireya rhododendrons since they first came to the attention of the civilized world some 100 years ago. Besides a sense of adventure in making new crosses on the off-chance of breeding a 'winner', there are a number of specific reasons for attempting particular crosses: for example, the introduction of cold hardiness, heat tolerance or disease resistance, improvement of flowers, flower to leaf size ratio, foliage type, propagation qualities or plant growth form, and alteration or extension of the flowering season. All these objectives are primarily horticultural and commercial, but our own major reason for an extensive crossing programme involving the Vireyas has been to investigate compatibility

relationships and major breeding barriers within the entire genus *Rhododendron*. A number of interesting new hybrids arising from the programme have provided a welcome bonus.

At this point we need to pause and define types of hybrid. A first generation hybrid resulting from cross-pollination of two distinct pure species is known as an F_1 hybrid. It is usually more or less intermediate between the parent species in a majority of characteristics, although particular features of one species may dominate. Hybrids involving *R. commonae* or *R. lochae*, for example, tend to show the red flower colour of these two species even when the other parent may have a distinctly different flower colour such as white or yellow. Being sometimes partially or highly sterile, F_1 hybrids may be of limited use for further breeding, although they may be propagated as horticultural varieties by means of cuttings. Sterile flowers often have the advantage of longer vase life, and dead flowers do not have to be removed from bushes by hand to ensure annual flowering.

When a fertile F_1 hybrid is self-pollinated the progeny are referred to as F_2 hybrids. Among these plants genetic segregation can produce an array of characteristics ranging from one parental extreme to the other, and also many new recombinations of characters from both. This is where the most surprising and unusual variations turn up. Further generations produced by selfing F_2 plants, F_3 and F_4 etc, may also yield novel recombinations of the original species characters, but it is possible to move gradually towards a desired combination by consistent selection of appropriate individual plants in each generation — a slow business for rhododendrons when the time from seed to flowering and selection may be at least four to five years.

When a fertile F_1 hybrid is crossed to one of its parent species this is known as a first generation backcross or BC_1, for example (*R. macgregoriae* × *R. lochae*) F_1 × *R. macgregoriae*. The BC_1 progeny will naturally tend to show a predominance of characters from the recurrent parent. Successive backcrossing, BC_2 and BC_3 etc, is used when it is required to introduce one particular character such as disease resistance or a new flower colour into the recurrent parent. Again plants are selected for the desired combination of characters in each generation. When a fertile F_1 hybrid is crossed to a third species, the progeny are tri-specific hybrids, that is, they carry a complement of hereditary characters from three species, for example (*R. phaeopeplum* × *R. lochae*) F_1 × *R. zoelleri*.

When setting out to produce a hybrid it is important to select healthy, vigorous parent plants with desirable features. Flowers of the plant which is to act as seed parent are then emasculated by gently removing the anthers, which contain the pollen, at or just before the time of flower opening (i.e. before the pollen is shed). This helps to prevent accidental

self-pollination while handling the flowers. The emasculated flowers are then enclosed in muslin or a paper bag to prevent contamination with unwanted pollen by visiting insects. When the stigma in the centre of the flower becomes shiny and sticky with a fluid exudate it is receptive and ready to receive pollen. The exudate ensures that pollen adheres to the stigma, and also provides the correct medium in which it can germinate to produce the pollen tube that carries the sperms down to the ovary. For an excellent and detailed description of reproductive processes in rhododendrons the reader is referred to an article by Dr Barbara F. Palser which appeared recently in *The Rhododendron* (1985). Once the stigma is receptive, living pollen from the second parent species is spread liberally from whole anthers on to the stigma surface. Flowers should be labelled with the details of cross and date of pollination - jewellers tags are sufficient. The flowers are then returned to their protective bags until about two weeks after pollination when the danger of contamination by stray pollen is over. It is most important that no self-pollen from the seed parent reaches the stigma, either before or after cross-pollination. One of the most depressing outcomes of an attempted hybridization is to find, when the putative hybrids flower, that one has been carefully nurturing for years a very ordinary group of selfed offspring.

When attempting crosses between species which flower at different times, special procedures may be required. Stigmas will normally remain receptive and ovules viable for several days to a week after the first signs of receptivity. It may be possible to catch the last receptive stigmas of one species with the first mature pollen of a second species (or vice versa) but if the flowering seasons do not overlap at all then pollen storage will be required. Pollen normally survives only a few days at ambient temperatures, but when dehydrated and frozen can be stored for pollination at any season of the year. After selecting recently opened flowers, pollen is most conveniently collected in the anthers, which are wrapped in a small square of thin tissue paper and placed in a small, paper seed envelope. Envelopes are kept in a closed jar over a drying agent such as anhydrous calcium chloride or blue indicator silica gel, and are held in a refrigerator at 4 °C for two days, before transferring the sealed jar to a freezer at −20 °C. Pollen stored in this way will generally keep its viability for one to several years. When pollen is taken from the freezer for use, it should be allowed to come to room temperature before opening the packet. This will prevent moisture from condensing on the anthers and making the pollen difficult to handle. Care must be taken not to thaw and re-freeze unused pollen when removing packets from storage, since multiple freezing and thawing cycles can be lethal. It can be unwise to assume that pollen from an untested parent plant is viable. As already mentioned, many interspecific hybrids are partially or completely sterile, and even some individual plants of pure species may

produce little or no living pollen. A common clone of *R. orbiculatum*, for example, although capable of producing seed, is completely male sterile and thus might be cross-pollinated without emasculation. To determine the pollen fertility of an untested plant is a simple matter with laboratory facilities and a microscope. If these are not available, a reliable, although slow method is to use the pollen on emasculated flowers of another clone of the same species and wait to see if capsules are set. (Self-pollinating may not be a reliable method, as a few rhododendron species show reduced or no seed set after selfing). A more rapid but less predictable method is to sprinkle pollen on the surface of a drop of 10 to 15 per cent sucrose (sugar) solution and incubate in a closed container, to prevent evaporation, for about four to six hours. Examination of the droplet with a microscope or powerful hand lens in strong light against a dark background, should reveal pollen tubes growing from the grains if they are viable. Not all species pollen grains, however, are equally willing to germinate under these conditions. Addition of small amounts of boron and calcium salts to the medium may improve germination (Lin, Uwate and Stallman, 1977).

After cross pollination, ripening capsules should be removed from the plant just as the valves begin to open at the top. Each capsule is then sliced open longitudinally along its fracture lines and allowed to complete drying for 24 hours at room temperature. The seed is then gently brushed free from the capsule, and if it is not to be planted immediately should be stored in a manner similar to that used for pollen. The seed of all Vireyas, both species and hybrids, has a much shorter lifetime than that of other rhododendrons. For many Vireya species, seed survives only about three weeks to two months in normal shelf storage conditions. This short shelf life necessitates the special care of freeze storage.

Even in normal compatible pollinations between plants of the same species, not all of the ovules develop into mature viable seeds. In mature capsules unpollinated or aborted ovules form a powdery chaff from which viable seeds can be distinguished by their greater size and central swelling representing the embryo. Capsules produced by foreign cross-pollination often contain a lower than normal number of viable seeds. Chaff from such capsules should be carefully sorted to ensure that no good seed is lost. It seems that a critical number of pollinated and developing ovules are required within the capsule to prevent it from abscissing before maturity. The developing ovules are presumed to secrete a hormone which keeps the capsule stalk healthy and functional. Abscission of capsules with a lower than critical number of developing seeds is frequent in foreign cross-pollinations. In some such crosses small differences in plant health or environmental conditions appear to

be quite important in determining whether capsules with hybrid seeds will be retained on the plant to maturity.

For germination, Vireya seed requires temperatures in the range of 15 to 30 °C, a relative humidity above 90 per cent, sufficient free water for the seeds to imbibe and adequate light (about 4,000 lux). The germination medium should retain water and contain no inhibitors. Finely sieved moss peat is ideal, and partially decayed pine bark is also satisfactory. To prevent fungal infections and algal growth, pod chaff should be removed from the viable seeds; containers and potting media should be sterilized and all water either boiled or distilled. Some Vireyas, and especially slower-growing hybrid seedlings, can be extremely sensitive to chemical fungicides, so their use should be minimized. Fungicides are no substitute for cleanliness, but if necessary Thiotox is a suitable preparation.

Cotyledons have normally emerged by about three or four (sometimes five to six) weeks after sowing. At this stage the seedlings should be ventilated to reduce the relative humidity and risk of fungal infection. Suitable conditions for early growth are: temperatures of 20 to 30 °C by day and 10 to 20 °C by night, relative humidity of about 80 to 90 per cent, daylength of 15 to 18 hours and illumination in the range of 2,000 to 10,000 lux. Misting may be beneficial if given for 10 seconds once or twice a day in dry or hot weather, but the seedling leaves should be dry by nightfall to help prevent fungal growth. Air should be gently circulated, with some fresh throughput, and seedlings should be watered once each week with a 10 per cent normal strength liquid fertilizer.

Naturally, after making an interspecific pollination it would be nice to know whether the emerging seedlings are indeed hybrids. If both parents were Vireyas, confirmation of hybridity may take some time, and may even have to wait until the plants flower. All Vireya species and hybrids look much alike at the seedling stage, and all have rather similar flat scales on the surface of the first true leaves. For some hybrids an intermediate leaf type may become more obvious with time, but for most a comparison of the flowers with those of the parent species may be needed. Low seedling vigour, and later on partial or full pollen sterility are other frequent indicators of hybridity. For the occasional rare hybrids we have obtained between Vireyas and azaleas we have been able to identify hybrids at the seedling stage as having hybrid indumentum hair types: 'glandular' hairs with a knobbed tip, rather than Vireya scales or azalea simple hairs. Such immediate recognition is unusual, however, and patience is a necessary breeding skill.

Seedlings can be pricked out into pots when they reach about 1/3 inch in height. This is normally at about 20 to 30 weeks after sowing, but may be longer for hybrids with low vigour. The potting mix should be light with good drainage and aeration. It should retain water available to the

plant, have a slightly acid pH in the range of 4 to 6, and the soluble salts level should not be too high. The requirement for acidic conditions is general for rhododendrons throughout their growth. Ideally, pots should be misted once per day in the morning, and the light level should be relatively high (about 5,000 to 30,000 lux). Potting on requires a similar mix to that used for pricking out, but with slightly higher nutrient levels. It is worth noting that calcium is important to rhododendron health, but it should be applied as gypsum (calcium sulphate), which does not raise the pH, as does lime.

It may be tempting to discard weak, unattractive plants, but it makes better biological sense to carry all potentially hybrid seedlings forward if possible until they are proved to be non-hybrid, or both sterile *and* horticulturally undesirable. Fertile hybrids which are not themselves of any horticultural merit, are still potentially valuable for transferring genetic traits from one parent species to the other by backcrossing, or for further exploratory crosses to other species or hybrids. If space permits, it may pay to take several cuttings from putative hybrid plants even before hybridity is confirmed. This will lessen the risk of loss by death of a single plant, and give more material for breeding or propagation if hybridity is verified. Most Vireyas grow well from cuttings and are often easier to root than many other rhododendrons and azaleas. The rooting mix should be similar to that used for pricking out, but without fertilizer. Cuttings should be treated with a rooting hormone such as 0.2 per cent IBA powder in talc or 1 per cent IBA liquid dip, and should if possible be given bottom heat (20 to 25°C). Their tops should be kept cool with occasional misting, and out of direct sunlight. Once rooted, the cuttings are best hardened off for about two weeks in a cool low-light area with daily misting but without bottom heat or fertilizer. They can then be brought into full glasshouse light or diffuse sunlight and given dilute liquid fertilizer weekly. Vireya cuttings are generally well-rooted in about 8 to 10 weeks, although some hybrids may take longer.

All of the above discussion has assumed that hybrid seeds will be produced and will germinate. Unfortunately this does not always happen. There are a number of things which can go wrong, and 'Murphy's Law' applies to rhododendron breeding just as it does to our other endeavours. Obvious reasons for failure of crosses to set seed are:

— the seed parent is in poor health, under stress or sterile;
— the flowers on the seed parent are too old and past their period of receptivity;
— the pollen is not viable, perhaps too old, or derived from a sterile plant;
— pollen from a short-styled species has been applied to the stigma of a very much longer-styled species, and pollen tubes cannot grow down to reach the ovules.

Less obvious reasons relate to the phenomenon of interspecific incompatibility (Knox, Williams and Dumas, 1986), which has also been called 'incongruity' by some breeders. These barriers to hybridization can operate before or after fertilization. Growth of pollen tubes through the pistil of the flower is controlled by what we might term a 'molecular conversation'. The pistil secretes signal molecules to which the pollen tube can respond by growing normally, stopping or changing direction. The pollen tube must have receptor sites which 'recognize' these highly specific signal substances. As the various species have gradually diverged from each other in evolution, there have also been mutational changes in the substances involved in controlling pollen tube growth in the pistil. Thus, if pollen from one species is put on to the pistil of a different species there is a very good chance that the pollen tubes will not be able to 'read' correctly the foreign molecular signals of the pistil. Pollen tubes may grow abnormally, twist, burst, fail to reach the ovules or fail to release sperms at the right time. The process of fertilization can fail at any one of a number of sites in the pistil, from the stigma surface to the embryo sac within the ovule, depending on the pair of species which have been crossed (Williams, Kaul, Rouse and Palser, 1986 and Williams, Knox and Rouse, 1982). In addition to this type of incompatibility which prevents fertilization from occurring, a hybrid embryo may abort after fertilization if the parent genetic contributions cannot function compatibly together to regulate normal development.

For most crosses within section Vireya the species are sufficiently closely related that incongruity barriers are not a problem. For some crosses, however, such as those involving subsection Euvireya with subsection Pseudovireya, seed set is frequently prevented by natural barriers of this type. As yet we have no way to overcome these biological constraints for rhododendrons, although in other plant families there have been occasional successful manipulations to produce hybrid seed by tricks such as heating or amputating the style, 'disguising' incompatible pollen by mixing it with killed compatible pollen, injecting pollen directly into the ovary, or rescuing hybrid embryos in tissue culture.

At present, for rhododendrons, it is best to concentrate hybridization efforts on groups of closely related species for which interspecific pollen - pistil incompatibility and post-fertilization seed abortion do not occur. Among the many cross-compatible species in section Vireya numerous crosses have not yet been attempted, and even where hybrids have been obtained by other workers, the choice of different individual parent plants is likely to yield unique and different results. Even among the hybrid sibling progeny of a single cross-pollination there may be considerable variation in horticultural potential. Hybridizing Vireyas is

a continuing adventure. No single cross exhausts the potential of a particular pair of species. The progeny of one pollination might be interesting, but perhaps the next pollination of the same two species could produce a 'winner'.

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A guide to Figures 4 to 15 which represent a selection of Vireya species and hybrids

Figure 4 This natural *R. saxifragoides* alpine hybrid arose as a rogue seedling in a batch of seed of *saxifragoides* collected in the wild by Mr Paul Kores in 1976. While the other seedlings appeared to be true *saxifragoides* with low vigour, and are as yet unflowered, this hybrid developed rapidly with upright growth and is floriferous. Its leaves and flowers suggest that the male parent is *R. womersleyi* or a *R. womersleyi* hybrid and owing to its natural alpine habitat, we can expect it to be relatively cold hardy.

Seedlings obtained by selfing this hybrid are not yet large enough to flower but their vegetative growth is similar to that of their parent. Crosses (none of which have flowered yet), have been made with *R. lochae*, *R. laetum*, *R. konori* and *R. luralurense* with the expectation of introducing cold hardiness into the offspring.

Figure 5 *Rhododendron lochae* is the only known native Australian rhododendron. It grows in the coastal mountain tops of Queensland from Bellenden Kerr northwards. The photograph shows a specimen collected on Thornton Peak.

Figure 6 *Rhododendron* 'Australia II' is the hybrid ((*phaeopeplum* × *lochae*) × *zoelleri*) × "Gardenia Aff". The female parent was grown from seed obtained from Strybing Arboretum in 1972. The pollination with four-year-old pollen on *R.* "Gardenia Aff" was made in December 1978 and the seed was collected six months later. 'Australia II' first flowered in November 1983, and was entered in the competitive display at the Annual Spring Rhododendron Show at Olinda, where it received the Certificate of Merit and was awarded Best Truss of a Rhododendron Bloom in Show. A number of sister seedlings have flowered recently. They display a wide range of flamboyant variability.

Figure 7 *Rhododendron* 'Liberty Bar' was raised from seed supplied by Mr D. Stanton who made the cross *R. aurigeranum* × *R. lochae*. As is usually the case with F_1 hybrids when one parent is *R. lochae*, the flowers are a bright red. This particular hybrid is most floriferous, with attractive foliage, and is well worth growing in Australian suburban gardens.

Figure 8 *Rhododendron retusum* is a terrestrial shrub from Sumatra and Java. It has dark red flowers, and because of the type of scales on the under-surface of its leaves, it is placed in subsection Pseudovireya.

Species in this group are not of much horticultural interest and are seldom used in hybridization because their flowers, though attractive, are rather too small to appeal to the gardening public.

Figure 9 *(aurigeranum* × *lochae)* × *retusum*. This cross was made in November 1980 and the seeds were collected and sown four months later. The aim was to study sexual compatibility within section Vireya as part of a comprehensive investigation within the genus. Here, since *aurigeranum* and *lochae* are in subsection Euvireya, we are looking at a cross involving subsections Euvireya and Pseudovireya, two subsections which contain very different species. Other crosses of this type and reciprocal crosses, e.g. *R. retusum* × *R. javanicum*, have also resulted in hybrids, while some, e.g. *R. macgregoriae* × *R. quadrasianum* var. *rosmarinifolium*, have failed to produce viable seedlings.

Figure 10 *Rhododendron* 'Wattle Bird'. The pollination *R. laetum* × *R. aurigeranum* was made by J. L. Rouse in 1973 using a fine, pure yellow form of *R. aurigeranum* with many flowers in the truss, and a vigorous, large, yellow-flowered form of *R. laetum*, with the aim of producing the best, brilliant yellow-flowered *Rhododendron* hybrid. A selected seedling was named and registered in 1984. 'Wattle Bird' is rather straggly, and further improvement could be expected by crossing it with *R. retivenium* which has deeper yellow flowers and shorter internodal lengths.

Figure 11 *R. konori* × *R. laetum*. This pollination was made in 1973 using the Irian Jaya form of *R. konori*, which has large, white, perfumed flowers occasionally with a red spot at the junction of the corolla lobes. It grows well in Melbourne, either in a container or garden bed, provided it is kept free of frost. Large plants can be expected to flower each year, with fifty or more trusses each containing three to six flowers. Unfortunately, the blooms do not usually last for long as flowering occurs in February, our hottest month. The pollination was made with the aim of observing the F_1 hybrids resulting from crossing two magnificent, but very different, species. So far, seedlings which have flowered are similar and it is doubtful if any are an improvement on either parent.

Figure 12 *Rhododendron commonae* is a terrestrial shrub from New Guinea where it occurs at an altitude of 10,000 to 13,000 feet. As such, we can expect it to be more cold hardy than Vireyas from lower altitudes, a characteristic which may be transmitted to hybrid offspring when it is used as a parent. Compared to the other alpine Vireya, *R. saxifragoides*, which is difficult to grow and flower in our Melbourne climate, *R. commonae* is easily cultivated here, flowers frequently and is tolerant of our hot dry summers.

Figure 13 *Rhododendron stenophyllum* is found epiphytically or terrestrially on Mount Kinabalu in Sabah at about 6,500 feet. The orange or orange-red flowers are mostly in twos or threes and when they

first open the anthers are grouped together centrally at the front of the corolla, thus hiding the pistil. This species, as with most of the Vireyas, is easily propagated from seed or cuttings, but once a plant is taller than 1 1/2 feet it usually succumbs to root rot. Grafting on to a vigorous hybrid Vireya rootstock may alleviate this problem. The leaves are long and very narrow with a ratio of length:width of 25:1. When this species is used in hybridization the shape of the leaves of the small seedlings can be used to confirm true hybridity at an early stage. The photograph shows *R. stenophyllum* growing in a glasshouse at the Royal Botanic Garden, Edinburgh.

Figure 14 *(Rhododendron konori* × *R. laetum)* × *R. commonae* and *Figure 15* *Rhododendron stenophyllum* × *R. commonae*. Both these crosses were made in late 1980 with the aim of producing Vireya hybrids with horticultural value and increased cold tolerance from *R. commonae*. Both hybrids have attractive foliage and flowers, but as yet their cold hardiness has not been assessed.

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Fig. 4 *A natural hybrid between Rhododendron saxifragoides and womersleyi* *J. L. Rouse*

Fig. 5 *Rhododendron lochae 'Thornton Peak'* *J. L. Rouse*

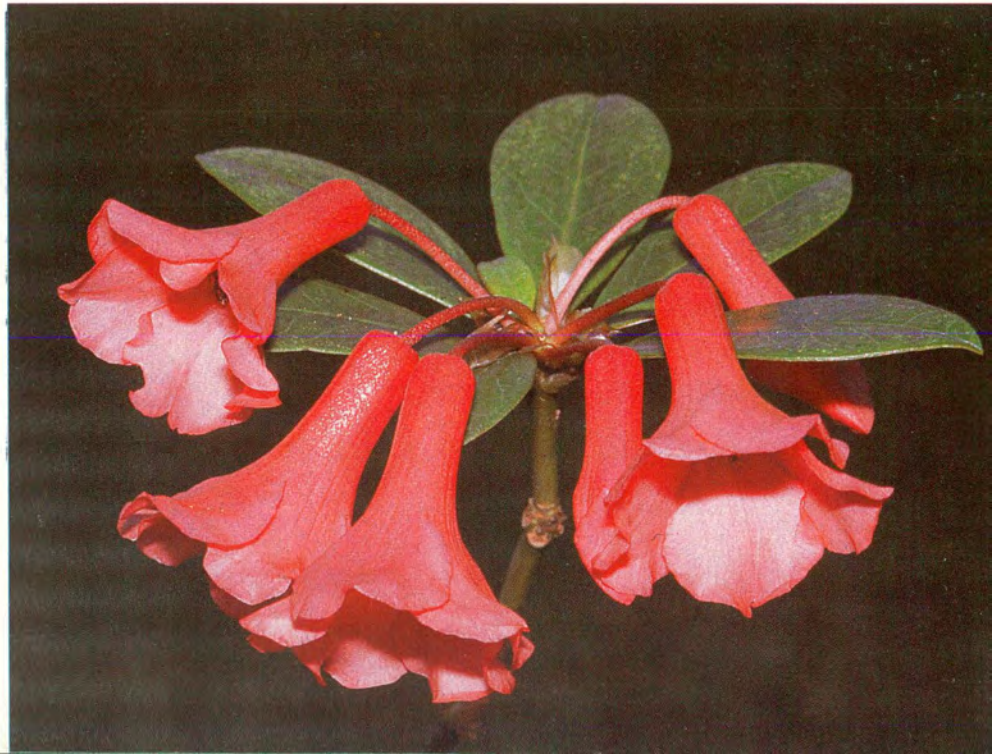

Fig. 6 *Rhododendron 'Australia II'* *J. L. Rouse*

Fig. 7 *Rhododendron 'Liberty Bar'* *J. L. Rouse*

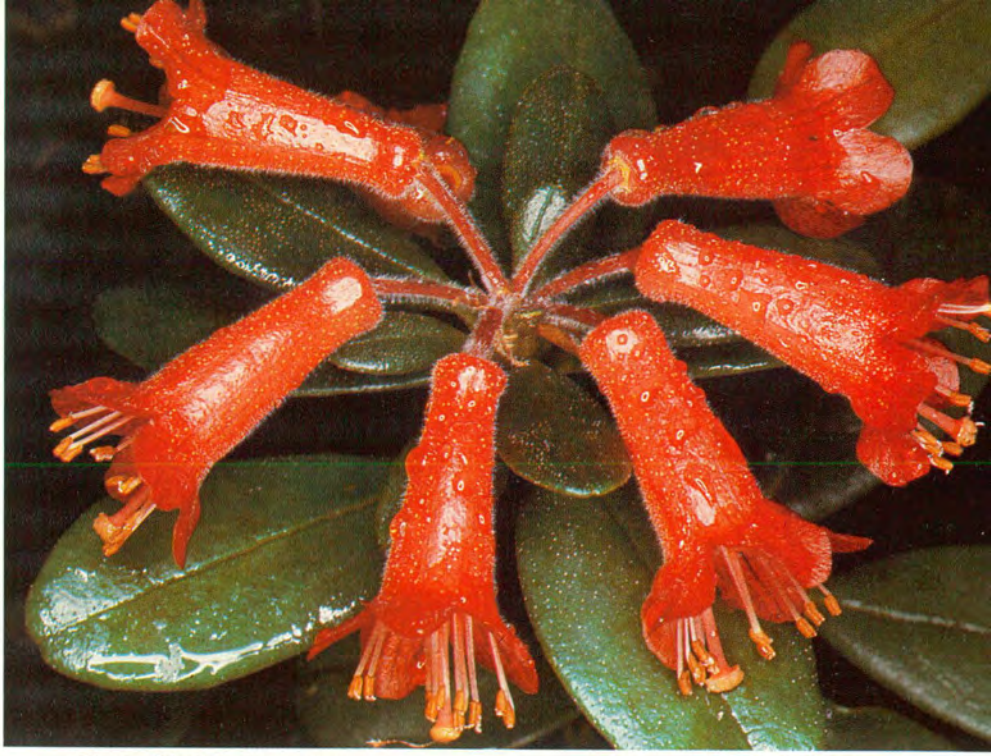

Fig. 8 *Rhododendron retusum* *J. L. Rouse*

Fig. 9 *Rhododendron (aurigeranum × lochae) × retusum* *J. L. Rouse*

Fig. 10 Rhododendron 'Wattle Bird' *J. L. Rouse*

Fig. 11 Rhododendron konori × laetum *J. L. Rouse*

Fig. 12 *Rhododendron commonae* *J. L. Rouse*

Fig. 13 *Rhododendron stenophyllum* *J. L. Rouse*

Fig. 14 *Rhododendron hybrid (konori × laetum) × commonae* *J. L. Rouse*

Fig. 15 *Rhododendron stenophyllum × commonae* *J. L. Rouse*

Fig. 16 *Rhododendron aperantum F 27081 collected by George Forrest in N. Yunnan on his 1924-25 expedition (page 58)* *J. F. McQuire*

Fig. 17 *Bark-covered paths offer easy access throughout the recent rhododendron plantings at the Royal Botanic Garden, Edinburgh (page 9)* *Dr R. B. Burbidge*

Fig. 18 *The camellia cultivar 'Jenefer Carlyon' for which Miss Gillian Carlyon was awarded the Reginald Cory Memorial Cup in 1984 (page 57)* *Christian Lamb*

Fig. 19 *Camellia 'Tristrem Carlyon' – a hybrid between 'Rosea Simplex' and 'Salutation' (page 58)* *Harry Smith Horticultural Photographic Collection*

A brace of Carlyon camellias

CHRISTIAN LAMB

The Reginald Cory Cup has only once before been awarded to a camellia, and that was in 1970 when the Countess of Rosse and The National Trust won it for *Camellia* 'Leonard Messel'. In 1984 it was awarded to Miss Carlyon of Tregrehan for her hybrid 'Jenefer Carlyon'.

The cup is given 'to encourage the production of new, hardy hybrids of garden origin'. The hybrid must be the result of a deliberate cross which has not been made before, and it must have received an award at one of the RHS shows during the current year. Most gardeners probably know all this, but Gillian Carlyon had never heard of it and was amazed and delighted to receive a letter from the Secretary of the RHS telling her she had won it and that as she had three camellias, all eligible, 'The Duchess of Cornwall' (*saluenensis* × 'Adolphe Audusson'), 'Yesterday' (*saluenensis* × 'Tomorrow'), and 'Jenefer Carlyon' (*saluenensis* × 'C. M. Wilson'), he would like her opinion in choosing the best cultivar.

'Jenefer Carlyon' was named in 1962 and registered ten years later. It received an A.M. in 1984. It is a camellia which grows in a tidy, bushy, spreading manner, the leaves are long and narrow with a high gloss, so interesting in fact, that long before it flowered it was given preferential treatment as a young seedling, being copiously fed and given extended daylight to encourage rapid growth. The buds are elegantly pointed and as they unfold the flower appears at every stage more delectable; when fully open it is a semi-double, pale silvery pink.

Camellia saluenensis is the seed parent of many of Gillian Carlyon's hybrids; 'C. M. Wilson' was chosen as the pollen parent, partly because it is a particular favourite of hers, and partly because of its interesting background. In 1819, Mr Chandler of Vauxhall, London, saved 'half a peck of seeds' from *Camellia* 'Warratah', later known as 'Anemoniflora'; he fertilized the flowering seedlings with pollen from another *japonica* hybrid 'Double Striped', syn. 'Variegata', and 'other esteemed sorts'. One of the resulting camellias he named 'Elegans' and a subsequent sport of this was called 'C. M. Wilson'. Among several other sports of 'Elegans' are 'Hawaii' and 'Elegans Champagne'. 'C.M. Wilson', being one of the few early hybrids whose origin is known, and with this very agreeable habit of sporting, was irresistible as a choice of parent.

Although the Reginald Cory Memorial Cup was awarded to 'Jenefer Carlyon', Gillian Carlyon herself has always thought her most interesting and successful camellia hybrid to be 'Tristrem Carlyon' ('Rosea Simplex' × 'Salutation'). She had always believed in the probability of *reticulata* 'blood' in Colonel Stephenson Clarke's 'Salutation' (*saluenensis* × *reticulata* 'Captain Rawes'), and had read with great interest articles on this most controversial camellia. She therefore purposely used 'Salutation' in her hybridization programme, hoping to provide further evidence.

'Tristrem Carlyon' grows in a graceful upright manner. Mr T. J. Savige, International Camellia Registrar, attributes the vigorous, erect growth to its *reticulata* ancestry. The large, rose-madder peony form flowers bloom so close together, and back to back, that occasionally perfect pompons are created. The long, lax stems are profusely covered in flowers for weeks at a time. The leaves are long and narrow and the new growth is pink and markedly similar to 'Captain Rawes'. It received an A.M. in 1976.

Rhododendron aperantum

RODERICK WHITE

I think the first time I saw *R. aperantum* was on a miserable, late winter's day in the Valley Gardens in Windsor Great Park. The reason that it caught my eye was that in the winter I tend to look for foliage plants rather than to try and hunt out some wretched, partly frosted flower, and as I have a small garden, the smaller rhododendrons are of great interest to me (oh for a dwarf *R. macabeanum*!).

The plants were all growing in the open with a little distant shade. They were quite widely spaced and were sporting a few flower buds (on some plants these were bright red, almost like berries). With a great deal of impatience I waited for their opening. I was not to be disappointed, some of the flowers were red and some pink, resembling flowers of *R. forrestii repens* or *R. chamaethomsonii chamaethauma*. The effect of these flowers on perfectly symmetrical foliage of the best specimens was really attractive. The older and more sparsely furnished specimens, as one would expect, bore the most flowers – an irritating characteristic of some rhododendron species.

My interest having been stimulated by these plants, I started to look for *R. aperantum* in other gardens. It was interesting to note that where I

did find it, it was growing in similar conditions to those described in the Valley Gardens, i.e. distant shade.

The largest number of mature plants of *R. aperantum* I have seen growing in one place is at Nymans in Sussex. These have proved to be an absolute delight. Having seen most of them in flower over a period of years confirms my opinion that *R. aperantum* is very variable, very beautiful, and very desirable!

Rather than try to think of a list of superlatives, perhaps I had better quote Farrer on the subject. He wrote of it

> 'It is simply one of the most radiantly lovely things you ever saw, and when you see it your mouth just opens and shuts feebly. It is common, in drifts and sheets, and, for the altitude and for its stature, rather large in all its parts. In stature it ranges from half an inch or less, to about six inches, spreading widely and often plastered flat against a rock, where starved. The flowers are very large, and in a sequence of the most glorious warm pink tones absolutely clean of mauve or blue shades, through hot flesh pinks, rose pinks, salmon pinks, to flushed snow and pure white.'

Whilst I heartily agree with his description of flower colour, the plants that I have seen to date have a very different habit, ranging from about 18 inches to 8 feet!

Most of the literature referring to *R. aperantum* (and there isn't much), describes it as being a sad disappointment in cultivation, and whilst this may be true as far as the quantity of flower is concerned, where the cultivation is good the plants look very happy and flower.

It seems a shame that such a beautiful species should have been stigmatized with such comments as: difficult to propagate; shy to flower; and liable to die off in parts for no apparent reason. One only has to see a well-furnished plant with a few trusses of 'hot flesh pink' flowers on it and the above comments fade into insignificance!

I hope that this article will encourage some species enthusiasts to try for the first time, or even again, this seemingly fickle, and potentially very rewarding, plant.

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Sorry all plants have to be collected.

The toothpick trick

ROB NICHOLSON*

It has always struck me that some of the most beautiful plants are also the most scarce. As an example, I would have to point to the Yulan magnolia, a personal favourite of mine, which despite its hardiness remains rare in the eastern USA. Scarcity is usually tied to propagation difficulties (although a parsimonious source can occasionally be a problem) and I have always felt that many magnolias, particularly the Yulan, could use a more productive method of propagation. With this in mind I undertook a small study to try to boost the rooting percentage of magnolia cuttings and I have some surprising results to report.

The study was a comparison of five treatments. The first was the control, in the second the cuttings were treated with a commercial IBA powder (0.8 per cent), and in the third cuttings were given a five-second dip in an alcohol-based IBA solution (5,000 ppm). The fourth and fifth treatments were quite different and, I believe, a new technique.

Flat toothpicks were put into small bottles of solutions of water-soluble indole butyric acid (K-IBA). These solutions were made to a strength of 1,000 ppm and 5,000 ppm. The toothpicks were allowed to soak for a few days, changing colour as they absorbed the amber hormone solution. These toothpicks were then inserted into the basal end of the cuttings, into the soft pith, and pushed longitudinally up into the cutting about one-third of an inch. The remainder of the toothpick was then cut off.

All cuttings of the four taxa (see table) were taken in early summer, treated, inserted in a medium of sharp sand and Perlite (1:1) and placed in an intermittent mist system over the summer months. They were overwintered in the trays in which they were initially stuck and kept in a cool greenhouse (40°F). Performance was rated in early April. The percentage of rooted cuttings was noted (see table: lefthand column of each treatment), and a qualitative assessment of the rooted cuttings was made. Points were assigned on the basis of rooting quality (excellent =3; good = 2; fair = 1) and then added up (see table: righthand column of each treatment). Each lot of cuttings numbered ten; however in two

*Assistant Propagator, The Arnold Arboretum, Massachusetts

trials there were insufficient cuttings to do five full treatments.

As the results show, the toothpick trick worked quite well in each trial, producing a higher number of quality points for all taxa.

I think the toothpick may be an advantage for two reasons. First, it plugs the soft pith and may prevent rot from gaining entrance. Second, there may be a slower, longer release of hormone, more evenly distributed throughout the base of the cutting.

This technique could use a follow up study with larger lots and a greater variety of taxa and I hope that I can get to it this summer. I invite others to try it, but would advise wearing plastic gloves when handling the toothpicks.

Rooting results for four treatments on four magnolias

Magnolia	Control		IBA powder 0.8%		5,000ppm IBA dip		1,000ppm K-IBA toothpick		5,000ppm K-IBA toothpick	
× *loebneri* 'Merrill'	0	—	20	3	40	9	40	8	90	25
× *soulangiana* 'Brozzonii'	20	2	40	7	60	11	70	19	70	21
heptapeta (= *denudata*)	60	8	90	17	—		80	18	80	22
'Elizabeth' (*acuminata* × *heptapeta*)	20	2	40	11	—		—		50	13

The reverse side of disaster

ESTHER M. HORWOOD-KING

The main garden at Barnhourie Mill can be likened to the old-fashioned male boater; the crown rising from the centre and the brim surrounding the base of the crown. In the garden, we call the crown the 'plateau', which is reached by flights of steps at various points, and the brim the 'flatlands'.

On the south-west side we brought the plateau down to the flatlands by a series of peat walls to allow planting space. On the north side the plateau descends to the flatland in a mass of solid granite. On the north-east we again terraced as much as possible, but on the east we could do nothing. Here the plateau dropped to the flatland as a precipice with a beautiful, aged oak growing on the extreme edge casting a heavy shade across the flatland. All we could do here was to make a foot-path at the base, leaving the flatland for the wild plants that here are both varied and beautiful.

This preamble sets the scene for the following story.

During a night in October 1984, 16 trees were uprooted by a great gale from the south-west. Most of these trees were sitka spruce, planted 18 years earlier to act as a wind break; we had already learned by bitter experience the force of the wind from this airt.

While contemplating this catastrophe with unmixed feelings I became aware of an inch or two of water lapping my feet. This was odd. In this area no free water existed; we had had a drought for many weeks and the burn that runs along the south-east of the garden was unusually low.

It was necessary to investigate. As I walked to the north the water became deeper, and rounding the north-east it had deepened to at least five inches, covering all the visible ground.

Here I stopped, not only because further progress was impossible, but from stunned disbelief. The great oak had fallen from the plateau. How a gale from the south-west could have thrown a tree on the east, and chosen that one out of many, is still a mystery. But there it was. Its girth covered the whole of the flatland; huge slabs of rock and countless boulders had been dislodged by its roots, and its leafy top was in the burn, effectively damming it, and causing the flow from the upper reaches to seek a new course; it chose the only direction it could: into the

garden. Obviously something had to be done quickly to open up the burn before the whole garden became flooded.

Help was organized to cut through the top branches, while the rest of us, standing on the opposite bank, drew the cut branches from the water, piling them wherever we could find room, until the burn was free again and the flood water beginning to recede.

Only then were we able to consider how best to tackle the havoc caused by the gale. That on the south side was not too difficult. Even eighteen-year-old sitkas have reasonably slender boles and lack the spreading branches common to most broad-leaved trees. They had also fallen across a dry-stone dyke which prevented their tops from crushing a number of shrubs, mostly species rhododendrons, growing perilously near.

Brief mention should be made of the origin of the dyke. In the year 1700, the dyke surrounded the mill pond. The pond, fed from the Barnhourie burn, in turn fed the mill lade that turned the big wheel of the corn mill. The mill ceased to operate in 1900. The lade was disconnected and the pond no longer received the water from the burn. When we came into possession in the early 1960s, the pond was silting up and ash, alder, willow and patches of *Typha latifolia* – commonly called bull rush – had taken root. Apart from digging a deep trench to speed the silting process and planting the wind-break, we left the pond with the dyke intact as a bird sanctuary. Little needed to be done here for the time being. The sitkas could be cut into suitable lengths and dragged away. The dyke could be attended to later. This left us free to concentrate on the oak.

Unfortunately it had fallen where no form of mechanical apparatus could possibly reach it. The most we could rely on was the ride-on mower with a small trailer attached, capable of pulling a load up to 5 cwt. This meant the whole of this enormous tree had to be cut into pieces small enough to be carried to and loaded into the little trailer, each load travelling the entire circuit of the garden to be unloaded, and then travelling back again.

Chainsaws were used but the wood – most particularly of the two trunks, was iron hard. Saws were blunted with sickening frequency; and many a time steel wedges were hammered in to release a captive saw or to allow us further progress. There were never fewer than four, and more usually five, workers sawing, dragging and loading whenever weather conditions allowed, but it was not until the following April (1985) that the last of the tree was removed.

Even this would not have happened had not six extremely kind friends formed themselves into a work party, adding their enthusiastic weight to our desperately flagging spirits.

We were now left with the root. Tougher than any of the wood had

been and with only one small piece separated before the saws permanently gave out, it was suggested that it would have to be blown up. A majority considered this to be dangerous. Instead, a hole as deep and as wide as possible was dug near the burn, and the root was winched into this. Only part of it was accommodated, the rest still stands up like the prow of a boat. The loose piece was winched behind a belt of trees to hide it. Now we had only to deal with the slabs of rock weighing up to 5 tons each, and the multitude of smaller rocks and stones.

Naturally, the original path had completely disappeared. The boulders were used to build up another path nearer to the burn. Two or three of the large slabs were winched to one side, the rest remained where they fell.

It was while we were digging out remaining pieces of root (roots are never left in the ground for fear of *Armillaria*) that we found the soil between the rocks was very deep and rich. Experiments proved this depth and richness extended to the site of the old path plus a strip of land adjoining. Revitalized, we dug; we defined the extremities and hand weeded a 58-foot length of border and eventually planted 40 precious plants of species rhododendrons. These, such as *R. lopsangianum*, *R. sherriffii*, *R. eriogynum*, *R. megeratum*, *R. viscidifolium* and *R. pachytrichum* were taken from a specially sheltered corner in the nursery, having been considered a little too tender for the open garden. Others, including *R. wightii*, *R. temenium*, *R. venator* and *R. catacosmum*, were taken from other parts of the garden to relieve overcrowding or prevent future overcrowding.

The new border, being wide for the most part, still left ample space for in-filling. It is the intention to plant here lilies, meconopsis, primulas, trilliums and nomocharis, none of which will grow happily in any other part of the garden.

We returned now to the south-west. Here, all was neat and tidy. The fallen trees were taken away and scattered branches removed. Only the wrecked dyke remained as evidence of the gale. All that was necessary was to rebuild the dyke. Dry-stone dykes have been a feature of Galloway for many hundreds of years and experienced dykers are still available.

The original position of the dyke here had caused considerable narrowing of the ground between it and the base of the plateau, making it difficult to integrate satisfactorily into the overall design of the garden. Since we were not wilfully disturbing an ancient piece of craftsmanship, it was decided to rebuild the dyke 10 feet further into the pond.

The ground behind the wall was levelled, weeded and extra soil added where necessary, and the wall was rebuilt on its new site in a gentle inward curve. The effect was beyond our expectations and the difference made by the extra width, unbelievable. We were well pleased.

The gale had been the worst we had experienced and the initial feeling one of despair. We had lost a fine tree that could never be replaced. We had experienced months of gruelling work that we knew we would never be able to face again. For the first time in 18 years we had to cancel the opening of the garden for Scotland's Garden Scheme.

We had also lost 18 years' valuable growth of wind-break, and 16 feet of ancient dyke had been wrecked. This was the obverse side.

However, we had gained an enviable extension to the garden, giving sheltered planting space to rhododendrons previously thought too tender to move.

We will always remember the kindness of friends who, unasked, worked so hard to help.

We have learned that however valuable the fast-growing but shallow-rooted sitka spruce is for afforestation, it is useless as a wind-break: and without damage to our sensibilities we have been able to rebuild an awkwardly sited dyke in a more agreeable position. We still have to re-plant a wind-break on the south-west, but all told, we feel the reverse side of the disaster has been kinder to us that we could have dared to expect.

Tailpiece. Owners of dry-stone dykes normally insure them against damage.

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RHS Rhododendron Competition 18 and 19 March, 1986

J. F. McQUIRE

Once again there were very few entries for this year's Competition, only 31 in 23 classes. If very cold winters persist each year in March, the staging of this event will continue to be far too early in the season for rhododendrons. Were it not for the tremendous efforts of Mr Stephenson Clarke, the event would have contained just two rhododendrons — namely 'Jabberwocky' (Class 22) and *spinuliferum* (Class 11) from Hydon Nurseries. More competition would result surely, if the event were held at perhaps the end of March, or, better still, early April.

Please note that unless otherwise mentioned, all exhibits were from Mr Stephenson Clarke, Borde Hill.

Class 1: four species, one truss of each. There was only one entry, securing a second prize, for a partly opened *barbatum* of fine colour, with an attractive crinkled edge to the corolla. A pink *eclecteum* with the corolla fading to white at the base, a *praevernum* beautifully flushed pink with a wine-red blotch and flecks, and a *strigillosum* completed the quartet.

Class 2: any species, one spray or branch. Again no first prize was awarded. The second prize went to the *praevernum* of Class 1, and a very fine *ririei* W1808 with a pronounced purple median line and a good colour combination of purple and white gained the third prize. A first class plant.

Class 3: any species, one truss. This time the *praevernum* of Classes 1 and 2 won a first prize. *Rhododendron lanigerum*, always a fine species, came second as it was past its best, with the *eclecteum* shown in Class 1, third. *Rhododendron ririei* W1808 was entered, but was unplaced as it was severely wilted.

Class 5: any species of subsect. Arborea or subsect. Argyrophylla, other than arboreum or its variants, one truss. Class 4 attracted no entries but in Class 5, *lanigerum KW6258* won a well-deserved first prize, with its good colour and fine foliage. The *ririei* W1808 entered in Classes 2 and 3 was placed second.

Class 6: any species of subsect. Barbata, subsect. Glischra or subsect. Maculifera, one truss. The sole entry *strigillosum* won second prize.

Class 8: any species of subsect. Fortunea, one truss. The winter weather prevented any entries for Class 7, but in Class 8 the *praevernum* of Classes 1, 2 and 3, won first prize.

Class 9: any species of subsect. Neriiflora, one truss. Again there was only one entry, *sperabile* var. *weihsiense* KW 7124, an early flowering clone which was awarded third prize.

Class 10: any species of subsect. Campylocarpa, subsect. Selensia, subsect. Thomsonia or subsect. Williamsiana, one truss. The only entry, the *eclecteum* of Classes 1 and 3 won second prize.

Class 11: any species of subsects. Afghanica, Boothia, Campylogyna, Fragariiflora, Genestierana, Glauca, Heliolepida, Lapponica, Monantha, Moupinensia, Rhodorastra, Saluenensia, Scabrifolia, Tephropepla, Triflora or Virgata, one spray. A contested class at last with R. N. Stephenson Clarke winning first prize with a beautiful pink *mucronulatum*. Hydon Nurseries followed with a pale-pink-flushed-cream *spinuliferum*, with R. N. Stephenson Clarke taking third prize with a *moupinense* which had won a first prize last year – a pretty clone indeed, with intense pink flushing.

Class 12: any species not included in any subsection mentioned in the foregoing classes, one spray. Third prize only was awarded to the sole entry, *vellereum* KW5656 which had partly opened flowers.

Class 14: three hybrids, one truss of each. Mr Stephenson Clarke found nothing to enter in Class 13, but in Class 14 his good white hybrid 'Anne Clarke' (*arboreum* var. *roseum* × *sutchuenense*) won first prize. No prizes were awarded to the other two entries.

Class 15: any hybrid, one spray or branch. The only entry was a good spray of 'Bo Peep' – a pale yellow in good condition, which won first prize.

Class 16: any hybrid, one truss. A second prize was awarded to an unnamed hybrid, *arboreum* × *calophytum*, the only entry, which had succumbed to the heat of the Hall, possibly losing its first prize.

Class 17: any hybrid of which one parent is a species of subsect. Arborea or subsect. Argyrophylla, one truss. Again, no first prize given, but the only entry, the same hybrid exhibited in Class 16, was awarded a second in this class.

Class 18: any hybrid of which one parent is a species of subsect. Fortunea, one truss. A first was awarded in this class to a fine 'Cornsutch', the only entry.

Class 21: any lepidote hybrid, one spray. Classes 19 and 20 were not honoured with any blooms, but Class 21 had a fine 'Cliff Garland' ('Bric-a-Brac' × *mucronulatum*), which had the class to itself and won first prize.

Class 22: any tender species or hybrid, grown under glass, one truss. A worthy first prize went to R. N. Stephenson Clarke for a good *veitchianum* - white, flushed pink at the base. Second prize was awarded to Hydon Nurseries for a fine dark pink 'Jabberwocky' (*cubittii* × *moupinense*) which was the only other entry.

Class 23: any tender species or hybrid, grown under glass, one spray. A very fine 'R. W. Rye' (*chrysodoron* × *johnstoneanum*), beautifully displayed, won first prize. This is a particularly good deep-yellow flowered hybrid of good texture – the yellow becoming slightly paler on opening. There were no other entries.

RHS Rhododendron Show 29 and 30 April, 1986

SECTION 1 SPECIES

J. F. McQUIRE

After a February of prolonged, very low temperatures, accompanied by persistent winds, it is surprising that many of the rhododendrons shown survived at all in the south. But, fortunately, the spring stayed cold which held back many an early flowerer to show its merits later, in the relatively frost-free, delayed spring. Once again the season was late, by some three weeks or so. But the fortitude of all things British, including rhododendrons grown from seed here, overcame the vagaries of the weather to present the enthusiast with a feast of entries for this event.

Two Scottish competitors were sadly missed this year, namely Peter Cox of Glendoick and Michael Ingall of Corsock, but John Christie of Blackhills managed to show some of the delights of his garden.

It would seem that the two consecutive bad winters have had the beneficial effect of reducing considerably the scourge of powdery mildew – none was evident on the show benches.

Class 1 The Lionel de Rothschild Challenge Cup: eight species, one truss of each. The cup was won splendidly by Mr Stephenson Clarke of Borde Hill with a fine selection of species: marvellous *smithii* 'Fleurie' A.M., *montroseanum* KW6261A – its rich pink always a welcome colour, a very good *niveum* with excellent foliage, a very pretty *sutchuenense* W1232 'Seventh heaven' A.M., *mallotum*, *uvariiflium*, a cream-flowered *arizelum* and a good, pale *macabeanum* KW7724 with bold foliage. A worthy cup winner, all the exhibits being in good condition.

Second prize went to Edmund de Rothschild of Exbury with a *calophytum* having a beautifully flared blotch, a beautiful *arboreum* var. *roseum*, an *arizelum* var. *rubicosum* of an unusual lilac-maroon, a fine *irroratum* 'Polka Dot', always an eye-catcher, *praestans*, *thomsonii*, *campanulatum* and *smithii*.

Third prize was awarded to John Christie of Blackhills for a very good *pachytrichum*, the corolla white flushed pink inside and darker pink outside, a very attractive clone. His *hookeri* was very good indeed – a fine crimson. Completing the eight were *hodgsonii*, *basilicum*, *montroseanum*, *smithii*, *ririei* and *phaeochrysum* whose beauty was somewhat diminished by sporting an *anthosphaerum* label; a mix up in the last-minute rush. The cup was well-contested with eight entries.

Class 2: three species, one truss of each. All three entries were awarded prizes, the first going to Anne, Countess of Rosse and The National Trust, Nymans, for a superbly coloured *macabeanum* KW7724, a well-known Nymans winner; *praestans* KW13653 with a maroon blotch and *arizelum*.

Exbury followed in second place with a pretty *coriaceum*, a fine *traillianum* with twin flecking on the corolla, and a *wallichii*.

Borde Hill took third for a fine *calophytum* W4279, a beautifully coloured *fulvum* F24314 F.C.C. and the well known *phaeochrysum* 'Greenmantle' R11325 A.M.

Class 3: The M^cLaren Challenge Cup. Any species, one truss. This was won by Nymans with their superb *macabeanum* KW7724, which helped to win Class 2, forcing a large *calophytum* bloom to take second place for Lord Aberconway and The National Trust, Bodnant.

Borde Hill was awarded third prize for a *niveum* in this well contested class with 16 entries, and a fourth prize was given to Nymans for a specimen marked *magnificum*, which is in fact under KW13681 at Nymans and was collected as *sinogrande*. It is a natural hybrid between *hodgsonii* and reputedly *falconeri*. The *hodgsonii* parentage makes this a very splendid flower and foliage plant indeed.

Class 4: The Roza Stevenson Challenge Cup: any species, one spray or branch with one or more than one truss. The Hon. Edward Boscawen, High Beeches, was awarded this for a marvellous branch of *uvariifolium*, white flushed pink with an attractive crimson flecking.

Robert Stephenson Clarke, Borde Hill, came a very close second with a branch of the lovely *iodes* F20425 'Easter Island' A.M. Surely Mr Stephenson Clarke must have been in two minds to show a branch of this rare species, bearing in mind the sacrifice of future blooms. Exbury came third with an attractive mauve-pink spray of *fargesii*.

Class 5: arboreum or its variants, one truss. Edmund de Rothschild secured both first and second prizes with a very fine *arboreum* var. *roseum* and a white *arboreum* respectively. The white *arboreum* had slight pink

flushing — residual from opening, no doubt. The Boscawens from High Beeches showed an *arboreum* var. *roseum* for third prize.

Class 6: any species of subsect. Arboreum or subsect. Argyrophylla, other than arboreum or its variants, one truss. Mr Stephenson Clarke won first prize with a large truss of the rare *hunnewellianum* W1198 with pale mauve flushing on a white corolla with crimson flecks, beating his own *niveum* into second place. Mr de Rothschild, Exbury, showed another *hunnewellianum* for third prize.

Class 7: any species of subsect. Barbata, subsect. Glischra or subsect. Maculifera, one truss. Mr Christie from Blackhills took first prize for a very good *pachytrichum*, white with purple flushing with light pinkish median lines.

Anne, Countess of Rosse and the National Trust, Nymans, carried off both second and third prizes with *glischrum* var. *glischroides* and *crinigerum* respectively, although these prizes could easily have been reversed.

Class 8: any species of subsect. Campanulata, subsect. Fulgensia, or subsect. Lanata, one truss. A very fine *campanulatum* with a creamy white corolla edged with pale mauve won first prize for Exbury, with R. N. Stephenson Clarke's *campanulatum* var. *aeruginosum* taking second. Third was *wallichii* from Bodnant.

Class 9: Any species of subsect. Grandia, one truss. Rhododendron montroseanum KW6261A secured Borde Hill a first prize, beating Blackhills' *montroseanum* of a paler pink. Nymans won third prize with an off-white *praestans* KW13653.

Class 10: falconeri or its variants, one truss. First prize for the only entry went to Blackhills for a pale pink *falconeri* subsp. *eximium*.

Class 11: rex or its variants, one truss. One entry only in this class won Borde Hill a first prize for *arizelum* F25608, a fine pale yellow with a crimson blotch.

Class 12: any species of subsect. Falconera, other than falconeri or rex, one truss. Blackhills won both first and second prizes with a fine pale-coloured *hodgsonii* with good foliage and a *basilicum* with an erect truss of pale cream with a maroon blotch. Exbury third with a mauve-maroon *arizelum* var. *rubicosum* as in Class 1. Could this be a hybrid?

Class 13: any species of subsect. Fortunea, one truss. A superb *calophytum* won for High Beeches a worthy first prize in this well-contested class of 12 entries. It beat a very fine pink *fargesii* with a large corolla from Exbury, with Bodnant coming third with a very good *calophytum*.

Class 14: any species of subsect. Fulva, one truss. A very fine truss of *fulvum*, white with pink flushing and maroon blotches, won a first prize for Bodnant. High Beeches took second prize with a fine *uvariifolium* with Borde Hill coming third with a good pink *fulvum* having fine bold foliage.

Class 15: any species of subsect. Irrorata, subsect. Parishia or subsect. Venatora, one truss. A magenta *anthosphaerum* won Nymans first prize with Exbury's *irroratum* 'Polka Dot' a very close second. *Rhododendron annae* F27006 'Anne Strelow' A.M. came third for Borde Hill. In this class of seven entries a fourth prize was awarded to Nymans's *lukiangense* of pale magenta.

Class 16: any species of subsect. Taliensia, one truss. Twelve entries for this class made Blackhills win all the more worthy with a very good *roxieanum* var. *cucullatum:* its tight trusses of white flowers with crimson flecks, beat Nymans' *traillianum* which had pink median lines and crimson flecks, an attractive clone, probably F25740. Exbury showed a pure white *phaeochrysum* var. *levistratum* for third place.

Class 17: any species of subsect. Neriiflora, one spray. Nymans was awarded a worthy first prize for a *beanianum* spray in pristine condition probably only narrowly beating a very beautiful *neriiflorum* from Exbury. Third prize went to Nymans for a good floriferous spray of *neriiflorum* subsp. *euchaites.*

Class 20: a species of subsect. Campylocarpa, other than campylocarpum, one spray. One entry only for this class, a second prize for *caloxanthum* from High Beeches.

Class 21: any species of subsect. Selensia, one spray. A very fine pink *martinianum* KW6795 won a first prize for Nymans and Borde Hill secured second place with the only other entry – a pale yellow × *erythrocalyx* Panteumorphum Group.

Class 24: a species of subsect. Maddenia, selected from dalhousiae, lindleyi, megacalyx, nuttallii, taggianum, grown under glass or otherwise, one truss. The two entries for Class 24 were judged to be not according to schedule.

Class 25: any species of subsect. Maddenia, other than those eligible for Class 24, grown under glass or otherwise, one truss. The number of entries for this class increased to a heady seven giving Borde Hill a first for a beautiful *veitchianum* with a pink flush at the base. Second prize went to Mr Gilbert of Lancarffe with a good *scopulorum* and Borde Hill took third prize for *dendricola* KW00281.

Class 26: any species of subsect. Thomsonia, one truss. Exbury won a worthy first prize with a splendid *thomsonii*, its calyx blending from the crimson of the corolla to the yellow of the pedicel. Blackhills was awarded second and third prizes for a good *meddianum* and a fine *hookeri* respectively, with Borde Hill undeservedly trailing with a splendid *faucium* for a fourth prize, out of twelve entries for the class.

Class 28: any deciduous species of the Azalea series, other than schlippenbachii, one spray. The only entry for Class 28 was E. de Rothschild's *reticulatum*, which won first prize.

Class 30: any species of sect. Pogonanthum, one spray. A dearth of azaleas left Class 29 empty, but Class 30 provided Nymans with a worthy first prize for its superb pale yellow *hypenanthum*; Borde Hill took second place for *primuliflorum* var. *cephalanthoides* Yu 15629 which was the only other entry.

Class 31: any species of subsect. Boothia or subsect. Tephropepla, one spray. Nymans clinched a first prize again with *leucaspis* which was in a very fine condition (was this the F.C.C. form?). There were no other entries.

Class 34: any species of subsect. Genestierana or subsect. Glauca, one spray. Surprisingly, there were no *campylogynum* or Cinnabarina entries for Classes 32 and 33, but three entries for Class 34 perhaps made up for it. Nymans won with an excellent *pruniflorum* of pale mauve beating Exbury's *luteiflorum*, with Mr Gilbert coming third, also with a *luteiflorum* of a deeper yellow than Exbury's but with a smaller corolla.

Class 35: any species of subsect. Heliolepida, one spray. A splendid spray of *rubiginosum*, a very attractive coloured clone with clear crimson flecks deservedly won Exbury a first prize putting a Borde Hill *rubiginosum* with a paler corolla into second place in a class of two entries.

Class 36: any species of subsect. Lapponica, one spray. Exbury won first prize with a good deep mauve *russatum* in which the corolla faded to white towards the throat. Borde Hill showed a good *hippophaeoides* for a second place, with no third prize awarded.

Class 37: any species of subsect. Baileya, subsect. Lepidota and subsect. Uniflora, one spray. Exbury's was the only entry, and won a first prize for a very fine example of *pemakoense*.

Class 38: any species of subsect. Saluenensia, one spray. A very good *calostrotum* of deep mauve with a nearly red calyx and a large corolla won Nymans a first prize and Borde Hill the only other entry, was second with the same species.

Class 39: racemosum, one spray. Exbury showed a marvellous deepish pink spray to gain a first prize ahead of Hydon Nurseries' 'Rock Rose' clone, a hard one to beat. Nymans took third prize.

Class 40: any species of subsect. Scabrifolia other than racemosum, one spray. The single entry was awarded second prize for R. N. Stephenson Clarke for *hemitrichotum* KW4050. Although it had a delightful flower, no doubt the partially opened blooms prevented a first prize.

Class 42: augustinii, one spray not exceeding 30 inches in height from the top of the vase. 'Electra' is eligible in this class. Only one entry was submitted, which gained no prize.

Class 43: any species of subsect. Triflora other than the yunnanense agg., one spray. Exbury was awarded a first prize for a slightly damaged, but floriferous, clone of *lutescens* as the only entry.

Class 45: any species of sect. Vireya, grown under glass, one truss. Mr Ted Allen of Copdock, Suffolk, won a first prize with a very handsome orange *brookeanum* 'Kundasan'. I am sure that we would all benefit greatly if more of these Vireyas were exhibited to whet our appetites. Sadly, there were no other entries.

Class 105: six rhododendrons, two leaves of each. Exbury was awarded first prize for a good exhibit, notable amongst them were 'Fortune', *bureavii* and *sinogrande*, the remainder being *mallotum*, *calophytum* and *yakushimanum*.

SECTION 2 HYBRIDS

K. and S. M. BLUNDELL

The February freeze and late spring reduced the entries in the hybrid classes and it was disappointing, although not unexpected, to see no azaleas. However those blooms which were exhibited were generally of a high quality and there was an added interest in seeing a number of plants which usually flower too early for the show.

Class 61: eight hybrids, one truss of each. 1. E. de Rothschild, Exbury, Southampton, Hants. - Jocelyne, Robin Hood, Fortune, Shilsonii, Janet, Edgar Stead, Ibex, Endeavour (eight very good trusses which were a credit to this top garden); 2. Lord Aberconway & The National Trust, Bodnant, North Wales - Cardinal, Siren, Calrose, *calophytum* × *griffithianum*, Snowy River, Rosalind, Redwing, Mrs Henry Shilson; 3. The Hon. H. E. Boscawen, High Beeches, Haywards Heath, Sussex - Queen Wilhelmina, Choremia, *irroratum* hybrid, Nestor, *arboreum* × *forrestii* subsp. *forrestii* Repens Group, Slocock hybrid, *arboreum* × *sutchuenense*, *calophytum* × *sutchuenense* (the last an attractive hybrid showing the influence of both parents).

Class 62: three hybrids, one truss of each. 1. R. N. Stephenson Clarke, Borde Hill, Sussex - Anne Clarke, Bernard Gill, Choremia (the last a particularly good deep colour); 2. E. de Rothschild - Choremia, Androcles, Adelaide; 3. Anne, Countess of Rosse & The National Trust, Nymans, Sussex - Leonard Messel, Armatine, Shilsonii. Good trios in all entries in this class.

Class 63: three hybrids, one spray of each. 1. E. de Rothschild - Alpine Glow (Avalanche grex), Blue Diamond, Racil (a nicely balanced set, well worth its first).

Class 64: The Loder Challenge Cup: any hybrid, one truss. 1. J. Christie, Blackhills, Elgin - Endeavour; 2. R. N. Stephenson Clarke - Anne Clarke; 3. E. de Rothschild - Calstocker. Also worth mentioning was a

perfect truss of 'Bernard Gill' from R. N. Stephenson Clarke. The high standard of all the entries in this class must have caused problems for the judges.

Class 65: any hybrid, one spray. 1. Lord Aberconway & The National Trust - Snowy River; 2. The Hon. H. E. Boscawen - *arboreum* × *forrestii*; 3. E. de Rothschild - Alpine Glow (Avalanche grex). Once again all the exhibits were of a high quality but the good colour of Snowy River (perhaps due to the cool conditions) ensured it the first prize.

Class 66: The Crosfield Challenge Cup: six hybrids raised by or in the garden of the exhibitor, one truss of each. 1. E. de Rothschild - Avalanche, Fortune, Adelaide, Galactic, Gaul, Exbury Calstocker; 2. Lord Aberconway & The National Trust - Redwing, Choremia, Calrose, Snowy River, Rosalind, *calophytum* × *griffithianum*.

Class 67: three hybrids raised by or in the garden of the exhibitor, one spray of each. 1. E. de Rothschild - Avalanche, *haematodes* × Kiev, *caloxanthum* hybrid (a superb plant, selected for trial at Wisley, which we hope to see named and distributed in the future); 2. The Hon H. E. Boscawen - *arboreum* × *forrestii* subsp. *forrestii* Repens Group, *calophytum* × *sutchuenense*, *arboreum* × *strigillosum*; 3. Major E. W. M. Magor, Lamellen, Bodmin, Cornwall - Dicharb, Maya, Barbsutch.

Class 68: any hybrid of which one parent is a species of subsections Arborea or Argyrophylla, one truss. 1. R. N. Stephenson Clarke - Blushing Beauty; 2. Lord Aberconway & The National Trust - Cardinal; 3. E. de Rothschild - Androcles; 4. Lord Aberconway & The National Trust - Choremia. Once again a good truss of Bernard Gill from R. N. Stephenson Clarke was perhaps a little unlucky not to receive a prize.

Class 69: R. Loderi or R. × *kewense, one truss.* Both entries in this class were not according to schedule.

Class 70: any hybrid of which one parent is griffithianum and the other any species except fortunei or campylocarpum, one truss. 1. Lord Aberconway & The National Trust - Beauty of Tremough.

Class 72: any hybrid of which one parent is williamsianum, one spray. 1. Lord Aberconway & The National Trust - Maestro; 2. E. de Rothschild - Humming Bird; 3. Anne, Countess of Rosse & The National Trust - Leonard Messel.

Class 74: any hybrid of which one parent is a species of subsect. Campylocarpa, one truss. 1. R. N. Stephenson Clarke - *campylocarpum* hybrid; 2. E. de Rothschild - Penjerrick Pink.

Class 75: any hybrid of which one parent is a species of subsect. Neriiflora, one truss. This class was monopolized by Choremia although there were marked differences in the plants. 1. E. de Rothschild; 2. Lord Aberconway & The National Trust; 3. The Hon. H. E. Boscawen.

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Class 76: any hybrid of which one parent is thomsonii, one truss. 1. The Hon. H. E. Boscawen - Nestor; 2. Anne, Countess of Rosse & The National Trust - Shilsonii; 3. Lord Aberconway & The National Trust - Rosalind. E. de Rothschild entered a very good dark Shilsonii which was unplaced.

Class 77: any hybrid of which one parent is a species of subsect. Thomsonia other than thomsonii itself, one truss. 1. E. de Rothschild - Penjerrick.

Class 78: any hybrid of which one parent is a species of subsections Grandia or Falconera, one truss. 1. E. de Rothschild - Fortune. A superb truss which would probably have won against any competition.

Class 79: any hybrid of which one parent is griersonianum and the other a species, one truss. 1. E. de Rothschild - Ibex; 2. Lord Aberconway & The National Trust - Calrose.

Class 80: any hybrid of which one parent is griersonianum and the other a hybrid, one truss. 1. E. de Rothschild - Karkov.

Class 81: any hybrid of which one parent is a species of subsect. Taliensia, one truss. 1. R. N. Stephenson Clarke - Beatrice Keir; 2. E. de Rothschild - Joanita. Two very good entries, both worthy of a first prize.

Class 82: Elizabeth, one spray. It would be kinder not to discuss this class.

Class 83: any hybrid, other than Elizabeth, of which one parent is forrestii subsp. forrstii Repens Grup or aperantum, one spray. 1. The Hon. H. E. Boscawen - *arboreum* × *forrestii* subsp. *forrestii* Repens Group; 2. E. de Rothschild - Gertrude Schale (a very well-flowered spray).

Class 86: any hybrid of which one parent is a species of subsections Maddenia or Edgeworthia, one truss or spray. 1. Major A. E. Hardy, Sandling Park, Kent - Countess of Haddington; 2. R. N. Stephenson Clarke - Harry Tagg.

Class 88: any hybrid between a species of subsect. Triflora and a species of any other section or subsection (including subsect. Triflora) other than subsect. Lapponica, one spray. 1. E. de Rothschild - Chink.

Class 90: Yellowhammer, one spray. 1. E. de Rothschild; 2. R. J. Gilbert, Lancarffe, Bodmin, Cornwall.

Class 91: any hybrid between two species other than those provided for in the foregoing classes, one truss or spray. 1. Hydon Nurseries, Godalming, Surrey - P. J. Mezzitt; 2. Anne, Countess of Rosse & The National Trust - Armatine; 3. E. de Rothschild - P. J. Mezzitt. Nice to see a first-rate but usually early-flowering American hybrid winning prizes.

Class 92: any hybrid between a species and a hybrid other than those provided for in the foregoing classes, one truss. As so often recently E. de Rothschild monopolized this class with Gaul which won first prize.

Class 93: any hybrid between a species and a hybrid other than those provided for in the foregoing classes, one spray. 1. E. de Rothschild - Lucy Lou.

Class 94: any hybrid between two hybrids, one truss. 1. E. de Rothschild - Janet; 2. Lord Aberconway & The National Trust - Barita; 3. Lord

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PHYLLIS KORN	Large cream flowers on a high truss. Splendid foliage. Tall.
YELLOW PETTICOATS	((Hotei × Pink Petticoats) × *wardii*) Bold, frilly yellow flowers, compact bluish green foliage.

Species available in the autumn will include such diverse taxa as: *adenogynum, arboreum album* SCH 2649, *longesquamatum, montroseanum, principis, piercei* KW 11040, *rubiginosum album, sutchuenense, traillianum, Azalea occidentale* (various S.M. numbers).

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Aberconway & The National Trust - Red Queen.

Class 95: any hybrid between two hybrids, one spray. 1. E. de Rothschild - Janet, confirming the judges' choice in the last class.

Class 96: any hybrid grown under glass excluding those eligible for Class 86, one truss. The only entry in this class, a *tsariense* hybrid, was unfortunately not fully enough open to be awarded a prize.

Class 97: any species, one truss or spray, restricted entry. 1. K. & S. M. Blundell, Bog Cottage, Banbury, Oxon. - *chamaethomsonii.*

Class 103: any dwarf Rhododendron suitable for the rock garden, one plant. 1. G. Reuthe Ltd, Keston, Kent - Elizabeth; 2. E. de Rothschild - Blue Diamond. Two well-grown plants which unfortunately were not quite in full bloom.

RHS Camellia Competition 18 and 19 March 1986

K. and S. M. BLUNDELL

February's mini ice-age destroyed the hopes of many exhibitors and we can only be grateful to those people who managed to find sufficient good quality blooms to make the Competition possible.

DIVISION 1: SPRAYS

Class 1: japonica, any three, one spray of each. 1. D. & R. Strauss, Stonehurst, Ardingly, Sussex - 'Berenice Perfection', 'Rogetsu', 'Wildfire'; 2. D. & R. Strauss - 'Hana-fuki', 'Cara Mia', 'Apollo'.

Class 2: japonica, any semi-double, one spray. 1. D. & R. Strauss - 'Wildfire'; 2. D. & R. Strauss - 'Apollo'.

Class 3: japonica, any anemone- or peony-formed, one spray. 1. D. & R. Strauss, - 'Faith'; 2. D. & R. Strauss - 'Gus Menard'; 3. D. & R. Strauss - 'Ballet Dancer'.

Class 4: japonica, any rose-formed or formal double, one spray. 1. D. & R. Strauss - 'Cardinal Variegated'.

Class 6: reticulata & its hybrids, any three, one spray of each. 1. D. & R. Strauss - 'Valentine Day', 'China Lady', 'Salutation'.

Class 7: reticulata or its hybrids, one spray. 2. D. & R. Strauss - 'China Lady'.

Class 8: saluenensis, one spray. 1. R. N. Stephenson Clarke, Borde Hill, Haywards Heath, Sussex.

Class 10: any three hybrids, one spray of each. 1. D. & R. Strauss - 'Interval', 'Daintiness', 'Valentine Day'.

Class 11: any three × williamsii hybrids, one spray of each. 1. D. & R. Strauss - 'Francis Hanger', 'Daintiness', 'Debbie'.

Class 12: × williamsii, any single-flowered, one spray. 1. D. & R. Strauss - 'Francis Hanger'.

Class 13: × williamsii, any semi-double, one spray. 2. D. & R. Strauss - 'Daintiness'.

Class 14: × williamsii, any peony- or rose-formed or formal double cultivar, one spray. 2. D. & R. Strauss - 'Debbie'.

DIVISION 2: BLOOMS

Class 16: japonica, any three single-flowered, one bloom of each. 1. The Duke of Devonshire, Chatsworth, Bakewell, Derbyshire - 'Jupiter', 'Charlotte Rothschild', name unknown; 2. The Duke of Devonshire - 'Alba Simplex', 'Charlotte Rothschild', name unknown; 3. D. & R. Strauss - 'Rogetsu', 'Evelyn', 'Clarissa'; 4. D. & R. Strauss - 'Rogetsu', 'Furo-An', 'Adelina Patti'.

Class 17: japonica, any single-flowered white, one bloom. 1. The Duke of Devonshire - 'Alba Simplex'; 2. The Duke of Devonshire - 'Charlotte Rothschild'; 3. D. & R. Strauss - 'Rogetsu'; 4. The Duke of Devonshire - 'Rogetsu'.

Class 18: japonica, any single-flowered self-coloured other than white, one bloom. 1. The Duke of Devonshire - 'Jupiter'.

Class 19: japonica, any single-flowered variegated, one bloom. 1. D. & R. Strauss - 'Clarissa'; 2. D. & R. Strauss - 'Adelina Patti'; 3. The Duke of Devonshire - 'Sieboldii'.

Class 20: japonica, any three semi-double, one bloom of each. 1. D. & R. Strauss - 'Wildfire', 'Mrs D. W. Davis', 'Lady Clare'; 2. The Duke of Devonshire - 'Vanity', 'Mrs D. W. Davis', 'Bob Hope'; 3. The Duke of Devonshire - 'Guilio Nuccio', 'Billie M^{c}Farland', 'Tricolor'.

Class 21: 'Drama Girl', one bloom. 1. The Duke of Devonshire.

Class 22: 'Mrs D. W. Davis', one bloom. 1. The Duke of Devonshire; 2. D. & R. Strauss.

Class 23: japonica, any semi-double white, one bloom. 1 and 2. The Duke of Devonshire. - 1. 'Sode-gakushi'; 2. 'Haku-rakuten'.

Class 24: japonica, any semi-double self-coloured other than white, not specified above, one bloom. 1. The Duke of Devonshire - 'Guilio Nuccio'; 2. D. & R. Strauss - 'Adolphe Audusson'; 3. D. & R. Strauss -'Lady Clare'.

Class 25: japonica, any semi-double variegated not specified above, one bloom. 1. The Duke of Devonshire - 'Guilio Nuccio Variegated'; 2. D. & R. Strauss - 'Tricolor'; 3. The Duke of Devonshire - 'Tricolor'.

Class 26: japonica, any three anemone- and/or peony-formed, one bloom of each. 1. The Duke of Devonshire - 'R. L. Wheeler', name unknown, 'Elegans'; 2. D. & R. Strauss - 'Ballet Dancer', 'Gus Menard', 'Touchdown'.

Class 27: japonica, any anemone- or peony-formed white, one bloom. 1. D. & R. Strauss - 'Gus Menard'; 2. The Duke of Devonshire - 'Merrillees'.

Class 28: japonica, any anemone- or peony-formed self-coloured other than white, one bloom. 1. The Duke of Devonshire - 'Tomorrow'; 2. The Duke of Devonshire - 'Elegans'; 3. B. E. Wright, Picket Post, Crowborough, Sussex - 'C. M. Hovey'.

Class 29: japonica, any anemone- or peony-formed variegated, one bloom. 1. The Duke of Devonshire - name unknown.

Class 30: japonica, any three rose-formed and/or formal double cultivars, one bloom of each. 1. The Duke of Devonshire - 'Alba Plena', 'Grand Sultan', name unknown.

Class 31: japonica, any rose-formed or formal double white, one bloom. 1. The Duke of Devonshire - 'Alba Plena'; 2. B. E. Wright - 'Paolina Maggi'.

Class 32: japonica, any rose-formed/formal double self-coloured cultivar other than white, one bloom. 1. The Duke of Devonshire - 'Mathotiana Rubra'; 2. D. & R. Strauss - 'Berenice Perfection'.

Class 33: japonica, any rose-formed or formal double variegated, one bloom. 1. The Duke of Devonshire - 'Augusto Pinto'; 2. D. & R. Strauss - 'Cardinal Variegated'.

Class 34: japonica, any six, one bloom of each. 1. D. & R. Strauss - 'Faith', 'Wildfire', 'Clarissa', 'Gus Menard', 'Mattie Cole', 'Adolphe Audusson'; 2. The Duke of Devonshire - 'Augusto Pinto', 'Grand Sultan', 'Grand Prix', 'Guilio Nuccio', 'Sode-gakushi', 'Magnoliiflora'.

Class 35: japonica, any three cultivars, one bloom of each. B. E. Wright - 'Bob Hope', 'Paolina Maggi', 'C. M. Hovey'; 2. D. & R. Strauss - 'Robert Strauss', 'Cara Mia', 'White Swan'.

Class 37: any three hybrids, one bloom of each. 1. The Duke of Devonshire -'Francie L', 'H. L. Paige', 'Debbie'; 2. D. & R. Strauss - 'Forty-Niner', 'Salutation', 'Interval'.

Class 40: any reticulata hybrid of which one parent is × williamsii or saluenensis, one bloom. 1. The Duke of Devonshire - 'Francie L'; 2. D. & R. Strauss - 'Salutation'.

Class 41: any single-flowered reticulata, one bloom. 2. The Duke of Devonshire - wild form.

Class 42: any semi-double-flowered reticulata, other than those eligible for Class 40, one bloom. 1. B. E. Wright - 'Arbutus Gum'; 2. D. & R. Strauss - 'China Lady'.

Class 43: any reticulata not eligible for Classes 40, 41 or 42, one bloom. 1. The Duke of Devonshire - 'H. L. Paige'; 2. B. E. Wright - 'Arch of Triumph'; 3. D. & R. Strauss - 'Valentine Day'.

Class 44: any three × williamsii, one bloom of each. 1. The Duke of Devonshire - 'Debbie', 'Bartley's Pink', 'Hiraethlyn'; 2. D. & R. Strauss - 'Daintiness', 'Debbie', 'Francis Hanger'.

Class 45: any semi-double × williamsii, one bloom. 1. D. & R. Strauss - 'Daintiness'; 2. The Duke of Devonshire - 'Donation'; 3. Mrs. N. Glass, Evensong, Virginia Water, Surrey - 'Freedom Bell'.

Class 46: any peony- or anemone-formed × williamsii, one bloom. 1. D. & R. Strauss - 'Debbie'; 2. The Duke of Devonshire - 'Debbie'.

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RHS Camellia Show 8 and 9 April 1986

PATRICK HAWORTH

For five weeks and more in February and March the temperature was so low that one would have required to go down on all fours to see it, and at the time of writing, in early May, it is still not warm. The Camellia Show was thus tinged with disappointment for there were entries in only 24 out of 58 classes, or 41%. The Show itself was not a spectacle, but was best viewed in association with adjacent displays of blooms mounted by camellia specialists and by the International Camellia Society.

All the contestants came from the south-east, with London well-represented, but the Show was not dominated by two or three names as in the same event last year. It was a day for those who garden in the relative warmth of London and, importantly, there are now four classes expressly for camellias grown under glass: Classes 30, 35, 40 and 45 – which were all represented. Two entries out of three which this recorder starred as outstanding at the time were in this category: D. & R. Strauss' 'Wildfire' in Class 35, and, perhaps best of all, their 'Kramer's Supreme' in Class 40. The third which proclaimed itself was the first to be seen – F. E. Smith's *japonica* 'Conspicua' in Class 3. It was poignant that there was only one 'Debbie' and one 'Wildfire'. What a stir they had caused in '85!

Mr G. Mount's × *williamsii* 'Donation' did him well, gaining first prize in both Classes 11 and 59, and second in Class 60, where, most interestingly, the first prize was won by Paulton Square Residents' Association. In Class 10, Mr Mount's 'Saint Ewe' had 17 blooms on the spray, and his 'J. C. Williams', which won third prize, was open, but Mr F. E. Smith's 'Mathotiana Alba' in Class 7 was still in bud. Viewers were lucky to see this camellia at all in the aftermath of such a winter, and all of the contestants deserved high praise for going ahead as they did at an inauspicious time.

DIVISION 1: SPRAYS FROM THE OPEN

Class 3: japonica, any three cultivars, one spray of each. 2. F. E. Smith, London W5 - 'Conspicua', 'Lady Clare', 'Nobilissima'.

Class 4: japonica, any single-flowered, one spray. 2. G. Mount, East Preston, W. Sussex - 'Alba Simplex'.

Class 5: japonica, any semi-double, one spray. 2. G. Mount - 'Guilio Nuccio'.

Class 7: japonica, any rose-formed or formal double, one spray. 2. F. E. Smith - 'Rubescens Major'; 3. F. E. Smith - 'Mathotiana Alba'.

Class 10: × williamsii, any single-flowered, one spray. 1. G. Mount - 'Saint Ewe'; 2. F. E. Smith - unnamed, like 'Saint Ewe' but with smaller flowers; 3. G. Mount - 'J. C. Williams'.

Class 11: × williamsii 'Donation'. 1. G. Mount.

DIVISION 2: BLOOMS FROM THE OPEN

Class 27: japonica, any single-flowered white cultivar, one bloom. 1. G. Mount - 'Alba Simplex'.

Class 30: japonica, any three singles grown under glass, one bloom. 1. D. & R. Strauss, Stonehurst, Ardingly, Sussex - 'Furo-an', 'Mattie Cole', 'Clarissa'.

Class 31: japonica, any three semi-double, one bloom. Mrs M. Assinder, London SW15 - 'Lady de Saumarez', 'Nagasaki', 'Tricolor' (no award).

Class 33: japonica, any semi-double self-coloured, not white, one bloom. 1. G. Mount - 'Guilio Nuccio'; 2. Mrs B. Griffiths, Thames Ditton - unnamed.

Class 34: japonica, any semi-double variegated. 2. Mrs M. Assinder - 'Tricolor'.

Class 35: japonica, any three semi-double grown under glass, one bloom of each. 1. D. & R. Strauss - 'Charlie Bettes', 'Guilio Nuccio', 'Wildfire'.

Class 38: japonica, any anemone- or peony-formed self-coloured other than white, one bloom. 1. Mrs R. Heywood, London SW3 - 'Elegans'; 2. Mrs B. Griffiths - 'Grand Slam'; 3. Mrs M. Assinder - 'Daikagura'.

Class 40: japonica, any three anemone- and/or peony-formed, grown under glass, one bloom of each. 1. D. & R. Strauss - 'Ballet Dancer', 'Gus Menard', 'Kramer's Supreme'.

Class 41: japonica, any three rose-formed and/or formal doubles, one bloom of each. 1. Mrs B. Griffiths - unknown, 'Contessa Lavinia Maggi', 'Thelma Dale'.

Class 43: japonica, any rose-formed or formal double self-coloured other than white, one bloom. E. D. Wearn, London W7 - 'Principessa de Clothilde'.

Class 44: japonica, any rose-formed or formal double, variegated, one bloom. Mrs A. Waterlow, London SW3 - 'Contessa Lavinia Maggi'.

Class 45: any three rose-formed and/or formal double grown under glass. 2. D. & R. Strauss - 'Contessa Lavinia Maggi', 'Masterpiece', 'Tomorrow Park Hill'.

Class 55: any reticulata cultivar of which one parent is saluenensis. 1. Mrs A. Waterlow, 'Francie L'.

Class 59: × *williamsii, any single-flowered, one bloom.* 1. G. Mount - 'Mary Christian'; 2. G. Mount - 'Saint Ewe'; 3. Mrs B. Griffiths - 'Golden Spangles'.

Class 60: × *williamsii 'Donation', one bloom.* 1. Paulton Square Residents' Association; 2. G. Mount.

Class 61: × *williamsii, any semi-double other than 'Donation', one bloom.* 1. Mrs M. Assinder - 'Brigadoon'.

Class 62: × *williamsii, any anemone- or peony-formed, one bloom.* 1. Mrs M. Assinder - 'Blue Danube'; 2. Mrs B. Griffiths - 'Debbie'.

Class 67: an arrangement, any camellia, grown in the open or otherwise. 1. Mrs M. Assinder.

Awards at Vincent Square 1986

CAMELLIA

Camellia 'Carolyn Snowdon' (*reticulata* 'Buddha' × *japonica* 'Ville de Nantes'). **A.M.** 25 February, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by Dr J. A. Smart, Marwood Hill, Barnstaple, North Devon. Habit upright, fairly fast growing; flower semi-double, striking red, stamens irregularly arranged.

Camellia 'Cornish Spring' (*japonica* 'Rosea Simplex' × *cuspidata*). **A.M.** 8 April, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by Miss Gillian Carlyon, Tregrehan, Par, Cornwall. Floriferous; young foliage slender, tinged bronze; flowers up to 4 cm diameter, ± single, clear, soft pink with slightly richer veining, with a small, dense boss of stamens, anthers brownish golden yellow.

Camellia japonica 'White Nun' A.M. 18 March, 1986, as a flowering plant for the cool greenhouse. Raised by J. McCaskill (U.S.A.) and exhibited by Dr J. A. Smart. Habit spreading, fast growing, leaves large, flowers up to 14 cm across, semi-double, white, almost flat when fully expanded, boss of stamens very conspicuous.

Camellia 'Nijinski' ('Salutation' hybrid). **P.C.** 8 April, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by Miss Gillian Carlyon. Habit elegant, leaves long and slender, tinged pink when young; flowers up to 12 cm across, single, Red Group 55A.

MAGNOLIA

Magnolia 'Eric Savill'. A.M. 29 April, 1986, as a hardy flowering tree. Exhibited by The Crown Estate Commissioners, The Great Park, Windsor, Berks. This magnolia was raised by the exhibitor from open-pollinated seed of *M. sprengeri* var. *diva*, and has flowered annually since 1978. Each scented flower opens to 18 to 20 cm in diameter, with 9 to 10 tepals. The tepals are 9 to 11 cm long by 2.5 to 4 cm broad; the inner smaller than the outer, Red-Purple Group 66C to B on the outside, but more or less white on the inside, shading to pale pinkish purple, Red-Purple Group 68B, at the outer edge. Specimen in Herb. Hort., Wisley.

Magnolia × soulangiana 'San Jose'. A.M. 19 May, 1986, as a hardy, flowering shrub. Exhibited by The Crown Estate Commissioners. This cultivar is somewhat paler than many forms of *M.* × *soulangiana*, with a more globular flower. Each flower has 9 tepals, the outer smaller, to 9.5 cm long by 5.5 cm wide, cream white inside, and flushed at the base with a pale purple stain, Red-Purple Group 69B. The inner tepals are slightly larger, to 11 cm long by 7 cm wide, and flushed on the outside with a slightly darker, more pink colour, Red-Purple Group 65B. The leaves at flowering were developing. Specimen in Herb. Hort., Wisley.

Magnolia 'Wada's Memory'. **F.C.C.** 29 April, 1986, as a hardy flowering tree. Exhibited by The Crown Estate Commissioners. This cultivar was raised by the University of Washington Arboretum from a batch of seedlings of *M. kobus* received from Japan in 1940. The second parent is thought to be *M. salicifolia*. The fragrant, cup-shaped white flowers, larger than *M. kobus*, are 12 to 14 cm in diameter when fully open. The 6 inner tepals are 7 to 7.5 cm long by 2.5 to 3 cm wide, flushed pale green (Yellow-Green Group 154C) at the base. The 3 white outer tepals, soon deciduous, are lanceolate, 1.5 to 2 cm by 0.5 cm wide. Specimen in Herb. Hort., Wisley.

RHODODENDRON

Rhododendron 'Queen of Hearts' (*meddianum* × 'Moser's Maroon'). **F.C.C.** 19 May, 1986, as a hardy, flowering plant. Crossed and raised by Lionel de Rothschild, exhibited by Edmund de Rothschild, Exbury Gardens, nr Southampton, Hants. Trusses 14-flowered. Corolla 5-lobed, funnel-shaped, up to 5.5 cm long and 9 cm across, Red Group 53A with heavy, blackish spotting and marking in upper throat. Stamens 8, held within, filaments flushed red, anthers dark brown; styles of equal length. Nectaries prominent. Calyx 5-lobed, to 0.5 cm, glandular, dark red. Leaves ovate-elliptic, up to 12 cm long and 5.5 cm across, dark, glaucous green above, yellowish green below, with traces of brown indumentum along the main vein.

Rhododendron 'Anne de Rothschild' (*campylocarpum* subsp. *caloxanthum* × *eclecteum*). **A.M.** 29 April, 1986, as a hardy, flowering plant. Crossed by F. Wynniatt, raised and exhibited by Edmund de Rothschild. Trusses 10- to 12- flowered, loosely held. Corolla 7-lobed, broadly funnel-shaped up to 4.5 cm long and 4.5 cm across, buds strongly flushed orange-red, opening to cream, Yellow Group C to D, with small blotch of Red Group 46A deep in throat. Stamens 10, held within, filaments cream, anthers brown; style greenish yellow. Leaves elliptic, up to 10.5 cm long and 4.5 cm across, dark green above, pale below, free of indumentum.

Rhododendron 'Arthur Hardy' (*calophytum* × 'Idealist'). **A.M.** 19 May, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by G. A. Hardy, Hythe, Kent. Trusses 14- to 16-flowered, full, rounded. Corolla 7-lobed, campanulate, up to 4 cm long and 10 cm across, Yellow Group 4D with small blotch Greyed-Purple in upper throat. Stamens 15 to 16, variable in length, held within: filaments greenish yellow, anthers brown; style held within. Nectaries prominent. Calyx rudimentary, green, scaly. Leaves oblong, up to 19 cm long and 7 cm across, dark green above, paler beneath, free of indumentum.

Rhododendron 'Duggie Betteridge' (*fortunei* × 'Jalisco'). **A.M.** 19 May, 1986, as a hardy, flowering plant. Crossed, raised and exhibited by Edmund de Rothschild. Trusses 13- to 14-flowered. Corolla 7-lobed, broadly funnel-shaped, up to 5 cm long and 12 cm across, inner surface of corolla Yellow Group 4D flushed shades of Red-Purple Group 65; outer corolla more strongly flushed red-purple. Stamens 15 to 16, irregular, held within or of equal length, filaments white, anthers brown; style yellowish green. Calyx rudimentary, green, slightly scaly. Leaves ovate, up to 13 cm long and 7 cm across, dark green above, pale green below, free of indumentum.

Rhododendron 'Kate Hurley' (*souliei* × 'Idealist'). **A.M.** 29 May, 1986, as a hardy, flowering plant. Crossed and raised by Major A. E. Hardy, exhibited by Major A. E. Hardy, Sandling Park, Hythe, Kent, and Mr. G. A. Hardy. Trusses 9- to 10-flowered, loose, open. Corolla saucer-shaped, 5-lobed, up to 7 cm long and 11.5 cm across, white, flushed red-purple. Stamens 12 to 15, irregular, held within; filaments white, anthers light brown, style greenish white, stigma green, held within or of equal length. Calyx irregular, green, up to 4 mm long. Leaves ovate-orbicular, up to 13.5 cm and 7 cm across, dark green above, paler, glabrous beneath.

Rhododendron 'Mrs Anthony Seys' (*fortunei* hybrid). **A.M.** 19 May, 1986, as a hardy flowering plant. Crossed and raised by Lionel de Rothschild, and exhibited by Edmund de Rothschild. Trusses 9- to 10-flowered, loose. Corolla 7-lobed, campanulate, up to 7 cm long and 12 cm across, inner surface of corolla creamy white, suffused and overlaid with Red-Purple Group 74D, outer corolla with deeper flushing of Red-Purple Group 74C, with small blotch of Red-Purple Group 59A deep in throat. Stamens 14, held within, filaments white, anthers light brown; style held within. Calyx rudimentary. Leaves elliptic-ovate, up to 17.5 cm long and 8.5 cm across, dark green above, pale beneath, free of indumentum.

Rhododendron 'Goldkrone' ((*wardii* × 'Alice Street') × ('Omega' × *wardii*)). **P.C.** 19 May, 1986, as a hardy, flowering plant. Crossed and raised by Hachmann (West Germany), and exhibited by Hydon Nurseries, Hydon Heath, Godalming, Surrey. Shrub up to 1.5 m. Truss 16- to 18-flowered. Corolla funnel-shaped, lobed, up to 3.5 cm long and 7 cm across, Yellow Group 3D, tinted 3C, marked with Red-Purple Group 60C and with darker spots of Red-Purple Group 59A. Calyx Yellow-Green Group 154C to D, 2 mm long. Leaves obovate/ovate, up to 9 cm long and 5.5 cm across, glabrous.

Awards after trial at Wisley 1986

On the recommendation of the Rhododendron and Camellia Committee, Council has made the following awards to cultivars suitable for garden decoration of camellias and rhododendrons after trial at Wisley.

The number given in brackets after the description of the stock was that under which it was grown in the trial.

Camellia × williamsii and other hybrid camellias

'Bowen Bryant' F.C.C. 7 May, 1986. Raised by Prof. E. G. Waterhouse; sent by James Trehane & Sons Ltd, Stapehill Road, Hampreston, Wimborne, Dorset. Plant 253 cm high, 241 cm spread, vigorous, erect, compact habit; very free-flowering. Leaves 8 cm long, 4 cm wide, medium dull green. Flowers 9.5 cm diameter, semi-double, with four rows of petals, Red-Purple Group 62C with very delicate slightly deeper veining becoming white at base. No scent. Flowering from 6 May, 1986. (A.M. 1981) (24)

'Parkside' H.C. 7 May, 1986. Sent by The Crown Estate Commissioners, Crown Estate Office, The Great Park, Windsor, Berks. Plant 133 cm high, 183 cm spread, fairly vigorous, fairly erect, spreading habit; fairly free-flowering. Leaves 10 cm long, 4 cm wide, medium, slightly glossy, green. Flowers 8.5 cm diameter, single, with two rows of petals, slightly brighter than Red Group 55B distinctly veined with Red Group 55A. Scented. Flowering from 30 April, 1986. (3)

Awards to camellias other than those growing in the trial

'Charity' A.M. 7 May, 1986. Raised by L. E. Jury; sent by James Trehane & Sons Ltd. Plant 190 cm high, 136 cm spread, fairly vigorous, erect, slightly spreading habit; very free-flowering. Leaves 7.5 cm long, 3.5 cm wide, fairly light, dull green. Flowers 11 cm diameter, semi-double, with five rows of petals with some petaloid stamens, brighter and pinker than Red-Purple Group 62A with deeper veining nearest to Red Group 55A. No scent. Flowering from 7 April, 1986.

'Daintiness' A.M. 24 April, 1986. Raised by L. E. Jury; sent by James Trehane & Sons Ltd. Plant 196 cm high, 124 cm spread, fairly vigorous, erect, fairly straggling, spreading habit; free-flowering. Leaves 9 cm long, 4.5 cm wide, medium dull green. Flowers 11 cm diameter, semi-double, slightly brighter than Red-Purple Group 62C delicately veined with a colour between Red-Purple Group 62A and Red-Purple Group 62B. No scent. Flowering from 23 April, 1986. (H.C. 1985)

'Royalty' A.M. 7 May, 1986. Raised by T. E. Croson; sent by James Trehane & Sons Ltd. Plant 178 cm high, 168 cm spread, vigorous, erect, spreading habit; fairly free-flowering. Leaves 14 cm long, 6.5 cm wide, glossy, fairly light green. Flowers 13 cm diameter, semi-double, with four rows of petals and very occasional petaloid stamens, redder then Red Group 53C with deeper, duller veining. No scent. Flowering from 4 May, 1986.

Hardy hybrid rhododendrons

'Curlew' (*ludlowii* × *fletcherianum*) **F.C.C.** 14 May, 1986. Raised by E. H. M. & P. A. Cox; introduced and sent by Hydon Nurseries, Hydon Heath, Godalming, Surrey. Plant 23 cm high, 39 cm spread, vigorous, slightly spreading, compact habit; very free-flowering; leaves 3 cm long, 2 cm wide, medium, slightly glossy, green. Flower truss 7 cm diameter, 7 cm deep, dome-shaped compact, 2 to 3 flowers per truss; corolla 5 cm diameter, 3.5 cm long, slightly expanded funnel-shaped. Yellow Group 3C, upper petals spotted Greyed-Orange Group 165A. Flowering from 9 May,1986. (A.M. 1981) (27)

'Percy Wiseman' (*yakushimanum* × ('Fabia Tangerine' selfed)). **F.C.C.** 29 May, 1986. Raised, introduced and sent by John Waterer, Sons & Crisp Ltd, The Nurseries, Bagshot, Surrey. Plant 53 cm high, 91 cm spread, vigorous, fairly upright compact habit; very free-flowering; leaves 7.5 cm long, 3 cm wide, dark dull green. Flower truss 12.5 cm diameter, 12.5 cm deep, globular-shaped, compact, 13 to 15 flowers per truss; corolla 5 cm diameter, 3.5 cm long, funnel-shaped, margins slightly lobed, cream getting darker towards base, very lightly flushed with a colour slightly paler than Red Group 55D, spotted with Greyed-Orange Group 167B on upper segment. Flowering from 24 May, 1986. (A.M. 1982) (288)

'Saint Merryn' (*impeditum* × 'Saint Tudy'). **F.C.C.** 7 May, 1986. Raised by Major-General E. G. W. W. Harrison; introduced and sent by Hydon Nurseries Ltd. Plant 42 cm high, 88 cm spread, vigorous, upright, very compact habit; very free-flowering; leaves 1.2 cm long, 7 mm wide, dark glossy green. Flower truss 5 cm diameter, 5 cm deep, fairly globular-shaped, 15 flowers per truss; corolla 3 cm diameter, 1.5 cm long, broadly funnel-shaped, margins very finely waved, a colour between Violet Group 87C and Violet Group 87D becoming slightly darker at extreme margins, midribs flushed towards tips with violet. Flowering from 6 May, 1986. (A.M. 1983) (12)

'Saint Minver' (*russatum* × 'Saint Breward'). **F.C.C.** 7 May, 1986. Raised by Major-General E. G. W. W. Harrison; sent by Hydon Nurseries Ltd. Plant 143 cm high, 154 cm spread, vigorous, upright habit; very free-flowering; leaves 2.8 cm long, 1.5 cm wide, dark, slightly glossy, green. Flower truss 8 cm diameter, 5.5 cm deep, globular shaped, crowded, 31 flowers per truss; corolla 3.8 cm diameter, 2.2 cm long, very openly funnel-shaped, margins waved, brighter than Violet Group 85A. Scented. Flowering from 1 May, 1986. (211)

'Camillo Schneider' ('Britannia' × *forrestii* Repens Group). **A.M.** 7 May, 1986. Raised, introduced and sent by the late D. G. Hobbie. Plant 101 cm high, 144 cm spread, vigorous, upright habit; very free-flowering; leaves 7 cm long, 3.3 cm wide, fairly dark, dull green. Flower truss 12 cm diameter, 7 cm deep, fairly lax, 6 flowers per truss; corolla 4.5 cm diameter, 4.5 cm long, funnel-shaped, margins waved, a waxy, glossy, Red Group 46A. No scent. Flowering from 1 May, 1986. (159)

'Caroline de Zoete' ('Bow Bells' × ('Socrianum' × 'Rima')) **A.M.** 14 May, 1986. Raised by A. F. George; introduced and sent by Hydon Nurseries Ltd. Plant 152 cm high, 185 cm spread, fairly vigorous, upright, slightly spreading habit; free-flowering; leaves 10 cm long, 4.8 cm wide, medium, slightly glossy, green. Flower truss 13.5 cm diameter, 10 cm deep, fairly globular-shaped, fairly compact, 11 flowers per truss; corolla 7 cm diameter, 4.8 cm long, campanulate-shaped, margins slightly waved, pure white very slightly flushed pale yellowish green towards base of throat. Scent slight. Flowering from 9 May, 1986. (H.C. 1985) (256)

'Elizabeth Hobbie' ('Essex Scarlet' × *forrestii* Repens Group). **A.M.** 14 May, 1986. Raised and introduced by the late D. G. Hobbie; sent by P. A. Cox, Glendoick Gardens Ltd, Perth. Plant 100 cm high, 155 cm spread, vigorous, upright, spreading habit; free-flowering; leaves 5.5 cm long, 3.3 cm wide, fairly dark, dull green. Flower truss 11 cm diameter, 9 cm deep, fairly globular-shaped, fairly lax, 5 flowers per truss; corolla 5.7 cm diameter, 4.3 cm long, openly funnel-shaped, margins very waved, a waxy colour between Red Group 46A and Red Group 46B, lower half of segments dotted with Red Group 46A. Scented. Flowering from 10 May, 1986. (258)

'Hydon Dawn' (*yakushimanum* × 'Springbok'). **A.M.** 29 May, 1986. Raised by A. F. George; introduced and sent by Hydon Nurseries Ltd. Plant 106 cm high, 158 cm spread, vigorous, upright habit; very free-flowering; leaves 8.2 cm long, 3 cm wide, dark green. Flower truss 14.5 cm diameter, 15.5 cm deep, globular-shaped, compact, 14 flowers per truss; corolla 5.5 cm diameter, 4 cm long, openly funnel-shaped, margins waved, Red-Purple Group 62D, centre of segment into throat flushed with between Red-Purple Group 62A and Red-Purple Group 62B, lower half of upper segment finely dotted with Red Group 46B. No scent. Flowering 23 May, 1986. (H.C. 1974) (179)

'Olga' ('Mrs. Lindsay Smith' × 'Dido'). **A.M.** 29 May, 1986. Raised and introduced by Walter C. Slocock Ltd; sent by J. A. Slocock, Charles Hill Nursery, Tilford, Farnham, Surrey. Plant 76 cm high, 88 cm spread, fairly vigorous, upright habit; free-flowering; leaves 10 cm long, 4 cm wide, medium, fairly glossy, green. Flower truss 14 cm diameter, 7 cm deep, globular-shaped, compact, 12 flowers per truss; corolla 6 cm diameter, 5 cm long, openly funnel-shaped, margins waved. Yellow-Orange Group 20D flushed with Red Group 39D becoming heavier towards margins, throat at upper segments flecked with nearest to Orange-Red Group 34B becoming slightly greener than Greyed-Yellow Group 162A at centre of upper segments, calyx reflexed, Yellow-Orange Group 20D, two upper segments flecked with Orange-Red Group 34C paling towards margins. Flowering from 27 May, 1986. (H.C. 1982) (189)

'Silver Sixpence' (((Fabia g.× (*fortunei* subsp. *discolor* × *facetum*)) × (*fortunei* subsp. *discolor* × *griersonianum*)) × (*wardii* × *yakushimanum*)) **A.M.** 14 May, 1986. Raised, introduced and sent by John Waterer, Sons & Crisp Ltd. Plant 138 cm high, 208 cm spread, vigorous, upright, spreading habit; very free-flowering; leaves 10.7 cm long, 4.2 cm wide, dark, dull green. Flower truss 15 cm diameter, 13 cm deep, fairly dome-shaped, compact, 9 flowers per truss; corolla 7 cm diameter, 5.5 cm long, openly funnel-shaped, margins waved, nearest Red Group 56A flushed over white, centre of segment into throat white, lower half of upper segments speckled with Yellow-Green Group 153D. No scent. Flowering from 11 May, 1986. (76)

'Sneezy' (*yakushimanum* × 'Doncaster') **A.M.** 29 May, 1986. Raised, introduced and sent by John Waterer, Sons & Crisp Ltd. Plant 100 cm high, 163 cm spread, vigorous, upright habit; free-flowering; leaves 11 cm long, 3.5 cm wide, dark, dull green. Flower truss 14 cm diameter, 13.5 cm deep, dome-shaped, compact, 16 flowers per truss; corolla 6 cm diameter, 5 cm long, openly funnel-shaped, margins waved, deeper and duller than Red Group 55B fading to white into throat, lower half of upper segment heavily spotted with Red Group 53A. No scent. Flowering from 21 May, 1986. (276)

'Woodcock' ('Elizabeth' × *hyperythrum*). **A.M.** 7 May, 1986. Raised, introduced and sent by The Royal Horticultural Society, Wisley, Woking, Surrey. Plant 230 cm high, 350 cm spread, fairly vigorous, upright, spreading habit; very free-flowering; leaves 7 cm long, 3 cm wide, slightly glossy, fairly dark green. Flower truss 17.5 cm diameter, 7.5 cm deep, fairly lax, 8 flowers per truss; corolla 6 cm diameter, 5 cm long, openly funnel-shaped, margins waved, Red-Purple Group 62D very slightly flushed with duller than Red Group 55B, extreme base of throat tinged red. No scent. Flowering from 2 May, 1986. (35)

'Mary Fleming' ((*racemosum* × *keiskei*) × *keiskei*) **H.C.** 7 May, 1986. Raised and introduced by G. G. Nearing; sent by P. A. Cox. Plant 106 cm high, 111 cm spread, vigorous, upright, fairly spreading habit; free-flowering; leaves 5.5 cm long, 2 cm wide, fairly dark, dull green. Flower truss 6.5 cm diameter, 6 cm deep, globular-shaped, crowded, 24 flowers per truss; corolla 3 cm diameter, 1.7 cm long, very openly funnel-shaped, margins waved, between Red Group 55B and Red Group 55C flushed over cream, throat cream. No scent. Flowering from 20 April, 1986. (196)

'Mountain Star' ('Stanley Davies' × *yakushimanum*) **H.C.** 29 May, 1986. Raised, introduced and sent by F. J. Street, Heathermead, West End, Woking, Surrey. Plant 70 cm high, 115 cm spread, vigorous, upright habit; free-flowering; leaves 12 cm long, 4 cm wide, medium dull green. Flower truss 15.5 cm diameter, 14 cm deep, fairly globular-shaped, fairly compact, 16 flowers per truss; corolla 6.5 cm diameter, 4.7 cm long, openly funnel-shaped, margins waved, nearest to Red Group 56A, centre of segment and into throat white, lower half of upper segment spotted with Red-Purple Group 59A. No scent. Flowering from 22 May, 1986. (291)

'Riplet' (*forrestii* Repens Group × 'Letty Edwards') **H.C.** 7 May, 1986. Raised and introduced by H. Lem; sent by P. A. Cox. Plant 43 cm high, 53 cm spread, fairly vigorous, upright habit; free-flowering; leaves 7 cm long, 3.5 cm wide, fairly dark, very dull green. Flower truss 13 cm diameter, 8 cm deep, slightly globular-shaped, lax, 4

flowers per truss; corolla 8.4 cm diameter, 6 cm long, openly funnel-shaped, margins waved, a glistening waxy colour between Red Group 45B and Red Group 45C flushed over cream, throat cream. Scented. Flowering from 27 April, 1986. (173)

Evergreen Azaleas

'Ward's Ruby' (parentage unknown) **A.M.** 12 June, 1986. Sent by L. R. Russell Ltd, Richmond Nurseries, Windlesham, Surrey. Plant 57 cm high, 87 cm spread, fairly vigorous, upright, spreading habit; free-flowering; leaves 3 cm long, 1.6 cm wide, dark glossy green. Flower truss 5.5 cm diameter, 3 cm deep, lax, 3 flowers per truss; corolla 3.5 cm diameter, 2.5 cm long, openly funnel-shaped, margins very slightly waved, Red Group 46A, lower half of upper segments very finely dotted with a deeper colour. No scent. Flowering from 23 May, 1986. (78)

'Chalk Hill' (parentage unknown) **H.C.** 12 June, 1986. Raised, introduced and sent by The Crown Estate Commissioners. Plant 64 cm high, 150 cm spread, vigorous, upright, spreading habit; free-flowering; leaves 3.5 cm long, 1.8 cm wide, medium green. Flower truss 9 cm diameter, 9 cm deep, lax, 3 flowers per truss; corolla 7.2 cm diameter, 4.5 cm long, openly funnel-shaped, margins slightly waved, white. No scent. Flowering from 5 June, 1986. (116)

Additions to the International Rhododendron Register 1985-6

The following list contains names registered during the period 1 July 1985 to 30 June 1986.

The abbreviations employed are those explained in the 1982-3 and 1983-4 supplements, with the following alteration: (v) not (m) is now used to indicate a sect. Vireya rhododendron.

In this supplement the symbol indicating the female parent (♀) has been omitted and in future it should be understood that the female parent is always listed first. In addition, whenever possible, colour names have been taken from *A Contribution Toward Standardization of Colour Names in Horticulture* by R. D. Huse & K. L. Kelly (American Rhododendron Society, 1984); references to colour chart numbers are retained in parenthesis e.g. 'strong purplish pink (68B),' where 68B is a reference to Red-Purple Group 68B in the RHS Colour Chart (1966, 1986). References to the older Horticultural Colour Chart usually retain the colour name given on that chart.

Finally, if an azalea is considered to belong to a recognized group, the name of that group is now placed at the end of the entry.

'Abby Boulter' cl. ('Doctor Stocker' hybrid) **H** & **G** (1975): V. J. Boulter **I**: F. Boulter **REG**: 1986. Fls 11-13/truss, funnel-shaped, 50 × 100 mm, white with pink spots on dorsal lobe. Lvs elliptic, 90 × 35 mm. Shrub 2.0 m.

'Acierto' cl. ((*chlorops* × *diaprepes*) × 'Bonito') **H** (1963), **G** (1977), **N** & **REG** (1986): D. W. Goheen **I**: L. Bulgin, 1982. Fls 16-18 truss, open funnel-shaped, 40 × 100 mm, with 7 wavy lobes, light purplish pink (55C), with *c.* 25 mm long deep pink rays deep in dorsal throat, with a few spots above rays, ventral throat pale yellowish pink (27C). Calyx 3 mm long, green, edged red. Lvs between oblanceolate and narrowly obovate or between narrowly elliptic and elliptic, 125 × 50 mm, glabrous. Shrub 3.8 × 1.9 m in 20 yrs. Early May.

'Alma Peste Paul' cl. (*yakushimanum* × 'Doncaster') **H**: F. Peste, 1979 **G**: F. & L. Peste, 1984 **N**: L. Peste **REG**: S. P. Johnston, 1986. Fls 23/truss, open funnel-shaped, 50 × 75 mm, with 5 wavy lobes, vivid purplish red (57D) in bud, opening pale purplish pink (56C), with 7 mm wide edging of strong purplish pink (62A) both inside and out and with moderate red (179B) spotting on dorsal lobe; outside with strong purplish pink (62A) stripes down each lobe. Calyx very small. Lvs oblanceolate, 108-140 × 35-45 mm, moderate olive green (147A) above, with a red- brown indumentum below. Shrub 0.4 × 0.5 m in 6 yrs. Mid May.

'Alpine Snow' cl. ((*lindleyi* × *dalhousiae*) × *taggianum*) **H**: C. W. Richards, c 1969, **G** (1973) & **N**: D. Spini **I** (1978/9) & **REG** (1986): E. Philp. Fls 7-11/truss, open funnel-campanulate, 100 × 120 mm, with 5 wavy lobes, light yellow-green (145B) to light yellow (10C) in bud, opening yellowish white (155D), with a 15 mm long blotch at base of throat, which starts moderate reddish orange (173B) and fades to brilliant yellow (13B). Calyx 25 mm long, green. Lvs narrowly elliptic, 130 × 50 mm, bullate, moderate olive green (137B) above, pale yellow-green (195C) below, with brown scales. Shrub 2.2 × 1.4 m in *c.* 12 yrs. Late April.

'Amarillo' cl. (*hemsleyanum* × 'Autumn Gold') **H** (1963), **G, N** & **REG** (1986): D. W. Goheen. Fls 12-14/truss, open funnel-shaped, 40 × 100 mm, with 7 wavy lobes, brilliant yellow (13B) in throat, shading to 25 mm wide lobe edging of light yellow (14D), outside moderate yellowish pink (31D); dorsal lobes reflexed. Calyx 3 mm long, upper lobes vivid reddish orange (40A), lower lobes light yellow-green (145D). Lvs narrowly elliptic to elliptic, 140-165 × 55-70 mm, glabrous. Shrub 3.8 × 2.6 m in 20 yrs. Late May.

(a) **'Anne Chantal'** cl. (Evergreen azalea: 'Exquisite' × 'Crimson Glory') **H, G** (1985), **N** & **I**: B. Smith **REG**: 1986. Fls hose-in-hose, 1-2/truss, funnel-shaped, 40 × 60 mm, deep purplish red (71A). Lvs elliptic, 50 × 25 mm. Shrub 0.3 m.

(a) **'Apricot Blush'** cl. (Evergreen azalea: 'Pink Dream' × 'Orchid Gem') **H, G** (1982), **N** & **I**: D. J. Dosser **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 30 × 60 mm, light yellowish pink (38C), fading to pale yellowish pink (36D) in centre; buds rose-bud shape. Lvs elliptic, 40 × 20 mm. Shrub 1.0m. Indian.

'Arthur Hardy' cl. (*calophytum* × 'Idealist') **H** & **G**: G. A. Hardy **N, I** & **REG**: 1986. Fls 14-16/rounded truss, campanulate, up to 40 × 100 mm, 7-lobed, pale yellow-green (4D) with a small greyed purple blotch in dorsal throat; nectaries prominent. Calyx rudimentary, green, scaly. Lvs oblong, up to 190 × 70 mm, dark green above, paler below, glabrous. **A.M.** 1986.

'Athanasius' cl. (((*laetum* × *(lochiae* × *)*) × *javanicum)* **H**: A. Headlam, 1973 **G, N** & **I**: P. Sullivan **REG**: W. A. Moynier, 1986. Fls 8-11/domed truss, tubular funnel-shaped, 40 × 45 mm, 5-lobed, vivid reddish orange (30B). Lvs elliptic, 100 × 50 mm, dull, moderate olive green (137A) above, moderate yellow-green (146C) with tiny, closely spaced, tan scales below. Shrub 0.56 × 0.66 m in 9 yrs. August-March.

'Australian Cameo' cl. ('Apricot Gold' × Lem's Cameo') **H, G** (1985), **N** & **I**: K. van de Ven **REG**: 1986. Fls 20-24/truss, funnel-shaped, light orange-yellow (22D), flushed pink. Calyx small. Lvs oblanceolate, 100 × 50 mm. Shrub 1.0 m.

'Australian Primrose' cl. ('Apricot Gold' × 'Lem's Cameo') **H, G** (1985), **N** & **I**: K. van de Ven **REG**: 1986. Fls 21-23/truss, funnel-shaped, 65 × 80 mm, light greenish yellow (4C). Calyx 30 mm long, light greenish yellow (4B). Lvs elliptic, 150 × 70 mm. Shrub 1.0 m.

'Australian Sunset' cl. ('Apricot Gold' × 'Lem's Cameo') **H, G** (1985), **N** & **I**: K. van de Ven **REG**: 1986. Fls 20-24/truss, funnel-shaped, strong orange-yellow (24B) on inside, moderate reddish orange (35B) on outside, with a 10 mm wide edging of strong red (41B). Lvs oblanceolate, 150 × 50 mm. Shrub 1.0 m.

(a) **'Baby Rosebud'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & I (c1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, hose-in-

hose (6 + 6-lobed, plus petaloid stamens), broadly funnel-shaped, 25 × 40 mm, light purplish pink (62C), with very narrow red edging. Calyx 20 mm long, coloured as corolla. Lvs elliptic to ± broadly elliptic, 20-30 × 10-20 mm, moderate olive green (146A), glossy, hairy. Shrub 0.4 × 0.45 m in 6 yrs. Greenwood Hybrid.

'Bagoly's Beauty' cl. ('Mars' × *yakushimanum* 'Koichiro Wada') **H** (1966): L. Bagoly **G** (1972), **N, I** (1975) & **REG**: M. Tietjens, 1986. Fls 16/truss, open funnel-shaped, 40 × 55 mm, 5-lobed, strong purplish red (58B), opening moderate purplish pink (68C), outside strong purplish pink (68B). Calyx very small. Lvs narrowly obovate to ± elliptic, 115-140 × 50-55 mm, with a very light beige indumentum below. Shrub 1.5 × 1.9 m in 18 yrs. Mid May.

'Bambi' cl. (*yakushimanum* × 'Fabia Tangerine') **H**: P. Wiseman, 1951 **G** (1957), **N** & **I** (1959): Waterers Nurseries, Bagshot **REG**: 1986. Fls 7-9/truss, broadly funnel-shaped, 40 × 55 mm, 5-6-lobed, strong red (50A) in bud, opening deep pink (51B), fading to strong pink (48D), with speckling on dorsal lobe. Calyx 20-25 mm long. Lvs elliptic, 75 × 25 mm, hairy. Shrub 1.0-1.2 m. May.

'Barbara Reuthe' cl. (Unknown, but believed to be derived from Jalisco g.) **G**:. W. S. Reuthe, 1975 **S** (1976) & **N**: E. W. Reuthe **I** (1982) & **REG**: G. Reuthe Ltd, 1985. Fls 8/truss, 80 × 90 mm, 7-lobed, light yellow (18A) on opening, becoming light yellow (18B). Calyx 20 mm long, light yellow (18A). Lvs oblong to elliptic, 115-130 × 50-55mm, glabrous.

'Barnsdale' cl. ('Naomi Stella Maris' × 'Ilam Canary') **H**: T. H. N. White, 1967 **G** (1972, obtained as a seedling) & **N**: J. M. Hudson **REG**: 1985. Fls 15/truss, open funnel-shaped, 50 × 95 mm, 7-lobed, stone cream, with chestnut blotch at base of dorsal lobes. Calyx 7 mm long, green. Lvs broadly ovate, 160 × 50 mm, glabrous. Shrub 3.6 m. Mid season.

'Barry Rodgers' cl. (*yakushimanum* × 'Pink Petticoats') **H**: F. Peste, 1979 **G**: F. & L. Peste, 1984 **N**: L. Peste **REG**: S. P. Johnston, 1986. Fls 24/truss, open funnel-shaped, 45 × 70 mm, with 5 very wavy lobes, strong purplish red (63A) in bud, opening pale purplish pink (62D), with a 10 mm wide strong purplish pink edging on inside and faint, brilliant yellow, dorsal spotting; outside strong purplish pink (62A). Calyx very small. Lvs narrowly elliptic to oblanceolate, 95-125 × 30-40 mm, moderate olive green (147A) above, with moderate orange indumentum below. Shrub 0.5 × 0.6 m in 6 yrs. Mid May.

(a) **'Berna Pride'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) × 'Doctor Bergmann') **H, G** (1970), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 40 × 50 mm, strong red (50A). Lvs elliptic, 40 × 12 mm. Shrub 2.0 m. Indian.

(a) **'Bob Elmer'** cl. (Deciduous azalea: 'Orangeade' × *austrinum*) **H** (1966), **G** (1976), **N** & **REG** (1986): G. & T. Elmer. Fls 10-12/truss, broadly funnel-shaped (flat-faced), 65 × 55 mm, with 6 wavy lobes, brilliant orange (29A), shaded vivid reddish orange (33A) at edges and on outside, with a vivid orange-yellow (23A) dorsal blotch. Calyx 3 mm long, greenish. Lvs oblanceolate, 70-80 × 20-25 mm, hairy. Shrub 2.2 × 0.8 m in 15 yrs. Mid to late April (southern USA). Chinquapin Hill.

(v) **'Buttermilk'** cl. (*konorii* × *aurigeranum*) **H** & **G** (1980): J. Rouse **I**: G. L. S. Snell **REG**: 1986. Fls 6-10/truss, tubular funnel-shaped, 70 × 70 mm, pale yellow (11D) inside, brilliant yellow (13C) outside. Lvs elliptic, 110 × 55 mm. Shrub 2.0 m.

'Canary Islands' cl. ((((*catawbiense* (white) × (*fortunei* subsp. *discolor* × Fabia)) × 'Mary Belle') × 'Catalgla') × 'Peking') **H** (1975), **G** (1982) & **N**: D. G. Leach **REG**: 1985. Fls 16/truss, 45 × 70 mm, 5-lobed, light greenish yellow (4C), light greenish yellow (4B) on dorsal lobe, with deep red (53A) dorsal spotting and a 7 × 15 mm dorsal blotch of same colour. Calyx 2 mm long, yellow. Lvs elliptic 102 × 52 mm, glossy green, glabrous.

(a) **'Candice'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (c 1983): W. L. Guttormsen **REG**: 1985. Fls 2/truss, hose-in-hose, open funnel-shaped (+6-lobed, plus some petaloid stamens), 30 × 50 mm, light purplish pink (55C), orchid throat, very narrow orchid edging, some spotting on dorsal lobe. Calyx 25 mm long, coloured as corolla. Lvs narrowly obovate to obovate, 20-40 × 13-22 mm, ± strong yellow-green (144A), glossy, hairy. Shrub 0.4 × 0.45 m in 6 yrs. Greenwood Hybrid.

'Casanova' cl. ('Newburyport Belle' × 'Good Hope') **H** (1968), **G** (1974) & **N**: D. G. Leach **REG**: 1985. Fls 12-14/truss, 45 × 55 mm, 5-lobed, opening pale yellow (11D), flushed moderate yellowish pink (38B) on exterior, with strong orange-yellow (22A) dorsal blotch; soon ageing to pale greenish yellow (10D), with light yellow (10B) blotch and slight external flush of moderate yellowish pink on midribs (38B). Calyx 1 mm long, yellowish

green. Lvs elliptic, 100 × 55 mm, glabrous, glossy.

'Catherine Olson' cl. ('Vulcan' × 'Azor') **H** (1961), **G** (1980) & **N**: Mrs S. Laxdall **REG**: 1986. Fls 9-10/truss, open funnel-shaped, 40× 55 mm, with 6 wavy lobes, strong red (50A) in bud, opening 50 in a wide peripheral band, shading to deep pink (50B) in centre of lobes and moderate pink (50D) in throat, unspotted; outside with 50 stripes down centre of each lobe. Calyx *c.* 1.5 mm long, green. Lvs narrowly elliptic, 95-135 × 30-40 mm, dull, moderate olive green (147A) above, with a very light, plastered, beige indumentum below; young shoots light copper coloured. Shrub 1.2 × 1.5 m in 23 yrs. Late July.

(a) **'Cathy Lynn'** cl. (Evergreen azalea: 'Louise Gable' × 'Helen Close') **H** (1961), **G** (1965), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 2/truss, double (5-lobed + 5-8 petaloid stamens), broadly funnel-shaped, 40 × 75 mm, strong purplish pink (67D), throat red, slight spotting on dorsal lobe. Calyx 7 mm long, green. Lvs elliptic to narrowly elliptic, 25-40× 13-22 mm, ± moderate olive green (147A), glossy, ± bullate, hairy. Shrub 0.6 × 0.6 m in 18 yrs. Greenwood Hybrid.

'Centennial Celebration' cl. ('Purple Lace' × *yakushimanum*) **H** (1976) & **G** (1983): F. Peste **N**: Washington State Centennial Celebration **I** & **REG** (1985): Bruce Briggs. Fls 20/truss, 55 × 75 mm, open funnel-shaped, with 5 wavy lobes, very light purple (75C), outside with deep purplish pink (68A) stripes, sparse dorsal tan spotting. Calyx rudimentary. Lvs narrowly elliptic to obovate, 140 × 54 mm, dark yellowish green (139A). Shrub 0.55 × 0.6 m in 8 yrs. Late April.

(a) **'Cherry'** Syn. of 'Greenwood Cherry'.

(a) **'Choice Cream'** cl. (Deciduous azalea: *austrinum* × *atlanticum*) **H**, **G** (1975) & **N**: F. C. Galle **REG**: 1986. Fls 12-20/truss, narrow tubular funnel-shaped, 25 × 40 mm, with 5 wavy lobes, buds light orange-yellow (22B) with a touch of pink, opening light yellow (10B), fading to pale yellow (11C), outside of tube strong red (45D); dorsal lobe with vivid yellow blotch (13A). Calyx 3 mm long, yellow-green. Lvs near oblanceolate, 45-90 × 17-25 mm, ciliate, hairy, yellowish in autumn. Shrub 1.5 × 1.5 m in 10 yrs. Early April.

'Christine Hillberg' cl. ('Lionel's Triumph' × 'Crest') **H** (1978) & **G** (1986): Harkwood Acres **N** & **REG**: F. J. Hillberg, 1986. Fls 11/truss, funnel-shaped, 50 × 80 mm, 7-lobed, lemon yellow. Calyx 5 mm long, light green. Lvs oblanceolate, *c.* 130 × 40 mm, glabrous. Shrub up to 4.0-5.0 m. May-June.

(a) **'Cottontail'** cl. (Evergreen azalea: 'Linda Jean' × 'Santanta') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double (5-lobed, + 12 petaloid stamens), funnel-shaped, 30 × 55 mm, white, with pale yellow throat. Calyx 7 mm long, green. Lvs ± broadly elliptic to ± obovate, 25-50 × 17-30 mm, ± moderate olive green (147A), very glossy, bullate, hairy. Shrub 0.15 × 0.5 m in 6 yrs, with creeping branches. Greenwood Hybrid.

(a) **'Cotton Top'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, tubular funnel-shaped, 25 × 50 mm, 5-lobed (with some petaloid stamens), white. Calyx 3 mm long, green. Lvs narrowly obovate to elliptic, 25-40 × 13-20 mm, ± moderate olive green, slightly glossy, hairy. Shrub 0.3 × 0.4 m in 6 yrs. Greenwood Hybrid.

(a) **'Cover Girl'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, double (5-lobed, + petaloid stamens), funnel-shaped, 25 × 45 mm, deep pink (52C), with red spots on dorsal lobes. Calyx 7 mm long, green. Lvs broadly elliptic to ± orbicular, 22-40 × 20-25 mm, ± moderate olive green (147A), somewhat glossy and bullate, hairy. Shrub 0.4 × 0.6 m in 6 yrs. Greenwood Hybrid.

'Cream Cascade' cl. (*leucaspis* × *lutescens*) **H** & **G** (1966): W. S. Reuthe **N**: I. Stanger **I** (1970) & **REG** (1985): G. Reuthe Ltd. Fls 6/truss, 30 × 38 mm, 5-lobed, pale orange-yellow (19D), with overtones of pale yellowish pink (36D), markings in throat pale yellow (19C). Lvs lanceolate, 63 × 23 mm, glabrous.

(v) **'Cristo Rey'** cl. ((*macgregoriae* × *zoelleri*) × (*laetum* × *zoelleri*)) **H** (1971), **G** (1976), **N** & **I** (1977): P. Sullivan **REG**: W. A. Moynier, 1986. Fls 6-8/domed truss, tubular funnel-shaped, 51 × 57mm, with 5 evenly rounded lobes, vivid orange (28B), gradually shading to brilliant orange-yellow (21B) in throat. Lvs elliptic, 80 × 40 mm, dark yellowish green (139A) above, yellow-green (144) below, with tiny, closely spaced, tan scales. Shrub 0.7 × 0.6 m in 8 yrs. May-September.

'Dame Cecily Pickerill' cl. ('Rubicon' × Kilimanjaro g.) **H** (1974), **G** & **N**: R. C. Gordon **REG**: 1985. Fls in compact trusses, very dark red, with black spots. Lvs lanceolate, dark green.

'Darlene Ellison' cl. ('Purple Lace' × *yakushimanum*) **H**: F. Peste, 1976 **G**: F. & L. Peste, 1983 **N**: L. Peste **REG**: S. P. Johnston, 1986. Fls 17/truss, open funnel-shaped, 50 × 70 mm, with 5 wavy lobes, vivid purplish red (61C) in bud, opening pale purplish pink (62D), with dark greenish yellow (152C) dorsal spotting, and moderate purplish pink (68C) stripes down outside on all lobes. Calyx very small. Lvs ± narrowly elliptic, 100-115 × 40 mm, moderate olive green (147A) above, with a light, plastered, tan indumentum below. Mid May.

'Dean Hall' cl. (Parentage unknown) **H** (c1967), **G, N & REG** (1986): M. E. Hall. Fls 15/truss, broadly funnel-campanulate, 45 × 70 mm, with 5-7 wavy lobes, pale purplish pink (56D), with light mustard coloured dorsal spotting. Calyx very small. Lvs narrowly elliptic, 150 × 50 mm, glabrous. Shrub 2.2 × 2.2 m in 12 yrs. Late May.

'Debbie Thomson' cl. ('Marion' × unknown) **H & G** (1979): V. J. Boulter **I**: F. Boulter **REG**: 1986. Fls 12-15/truss, funnel-shaped, 40 × 80 mm, vivid reddish purple (74A), fading to white, with an orange flare on dorsal lobe. L vs elliptic, 120 × 45 mm. Shrub 1.0 m.

(a) **'Delaware Blue'** cl. (Deciduous azalea: selection from *viscosum* (var. *glaucum*)) **S** (1977), **G** (*c.* 1980), **N, I** (post-1980) & **REG**: Mrs M. L. B. Hill. Fls 4-8/truss, very narrowly tubular funnel-shaped, 40 × 30 mm with 5 recurved lobes, sometimes faintly tinged pink in bud, opening whiter than 155D, with red-tipped glandular hairs on outside of tube. Calyx minute. Lvs narrowly obovate to obovate, 45-50 × 20-25 mm, ciliate, strigose below. Shrub 3.0 × 1.5 m in 7 yrs. June-July.

(a) **'Della's Red'** cl. (Deciduous azalea: grown from seed of New Zealand origin) **G** (1982), **N & I**: Mrs D. Hutchinson **REG**: 1986. Fls 12/truss, tubular funnel-shaped, 70 × 50 mm, vivid reddish orange (42A), with an orange flare on dorsal lobe. Lvs elliptic, 120 × 40 mm. Shrub 1.0 m.

'Denali' cl. ('Vanessa Pastel' × 'Pink Walloper') **H** (1973), **G, N & REG** (1986): J. A. Elliott **I**: Elliott Nursery, 1981. Fls 12-15/ball truss, open funnel-shaped, 60 × 100 mm, 5-lobed, tyrian rose (HCC 24, shading to 24/1), with a burnt orange (014/1) dorsal blotch. Calyx very small, light pink. Lvs elliptic, 180 × 80 mm, parsley green (00962) and glossy above. Shrub 2.1 × 2.1 m in 11 yrs. Mid May.

(a) **'Dhabi'** cl. (Evergreen azalea: 'Vuyk's Rosyred' × 'Moonbeam') **H** (1972), **G** (1979) **N & REG** (1986): G. Griswold **I**: Griswold Nursery, 1982. Fls 2/truss, open funnel-shaped, 50 × 75 mm, with 5 wavy lobes, deep purplish pink (68A), with strong red spots (53C) on dorsal lobes. Calyx *c.* 1.5 mm long, light yellow-green (138D). Lvs elliptic, 40-50 × 20-25 mm, dark green (136A), strigose hairy on veins below. Shrub 0.17 × 0.2 m in 3 yrs. Mid May.

'Dinny Dee' cl. ('Mrs Lammot Copeland' × unnamed late deep yellow) **H**: H. L. Larson, 1969 **G** (1976), **N & I** (1982): J. A. Davis **REG**: 1986. Fls 9-12/truss, open funnel-shaped, 50 × 75 mm, with 5 wavy lobes, vivid reddish orange (34B) in bud, opening brilliant yellow (13B), with two brown rays below dorsal lobe sinuses; fl. has orange in its colour at first, later changing to a deep gold. Calyx negligible. Lvs ± elliptic, 100-125 × 45-55 mm, glabrous. Shrub 1.1 × 1.0 m in 12 yrs. Mid May.

'Dosido' cl. ('Mrs Furnivall' × 'Unimak') **H** (1973) **G** (1978), **N & I** (1981): J. A. Elliott **REG**: 1986. Fls 12-15/truss, open funnel-shaped, 40 × 100 mm, 5-lobed, phlox pink in bud (HCC 625/1), opening 625/3, fading to white with age; dorsal spotting barium yellow (503). Calyx small, pink. Lvs oblong to narrowly obovate, 140 × 55 mm, spinach green (0960), glabrous. Shrub 1.5 × 1.5 m in 10 yrs. Early May.

(a) **'Double Delight'** cl. (Deciduous azalea: 'Narcissiflorum' hybrid) **H** (1972), **G** (1975) & **N**: J. O. Bunnell **REG**: 1986. Fls double, 13-16/truss, tubular funnel-shaped, 40 × 55 mm, with 5 + 5 sometimes wavy, ± reflexed lobes, greenish yellow in bud, opening vivid yellow (15A & B); no stamens, central lobes sometimes irregular and aborted. Calyx 7 mm long, strong yellow-green (144B). Lvs narrowly obovate to ± elliptic, c 55-70 × 27-30 mm, glossy green above, hairy. Shrub 1.2 × 1.4 m in 10 yrs. Mid May.

(a) **'Double Pleasure'** cl. (Deciduous azalea: 'Rosea Plenum' × *albrechtii*) **H** (1972), **G** (1976) & **N**: J. O. Bunnell **REG**: 1986. Fls double, 14-16/truss, tubular funnel-shaped, 40 × 50 mm, with 5 + 5 slightly wavy lobes, strong red (53C & D), outside deep red (53A); stamens absent; fls star-shaped with pointed, rather concave lobes. Calyx 3 mm long, green. Lvs narrowly obovate, 65-75 × 25-30 mm, glossy green. Shrub 1.5-1.7 m in 10 yrs. Early May.

'Durham Light' cl. (Probably a *ciliicalyx* hybrid) **R & N**: L. Bublitz : Duncan & Davies Nursery **REG**: A. Duncan, 1986. Has been sold as *R. ciliicalyx*. Fls 5-6/truss, funnel-shaped, 70 × 80-90 mm, 5-lobed, primrose yellow (HCC601/3), with a green flare at base

of upper throat, flushed pink on outside; scented; lobes frilled. Calyx 2 mm long, green. Lvs elliptic, 70-80 × 30 mm, with light brown scales, the lower side of leaves appearing greyish. Compact shrub. October (New Zealand).

'Duxbury' cl. ('Goldfort' × (*campylocarpum* × *williamsianum*)) **H**: L. Bagoly, 1970 **G** (1978) & **N**: Mr. & Mrs. F. B. Lawson **REG**: 1986. Fls 7-11/truss, open funnel-shaped, 50 × 90 mm, with 7 slightly wavy lobes, light yellow (18B) and light yellowish pink (27A) in bud, opening pale yellow-green (4D), shading to brilliant greenish yellow (3B) in throat; unmarked. Calyx very small. Lvs between narrowly elliptic and elliptic or broader than lanceolate, 135 × 55 mm, glabrous. Shrub 2.2 × 2.2 m in 12 yrs. Late May.

'Ed Farrow' cl. (*yakushimanum* × Kilimanjaro g.) **H** (1960/61), **G** (1973), **N** & **I** (1984): E. de Rothschild **REG**: 1985. Fls 14/truss, 45 × 55 mm, 5-lobed, buds strong red (53D) paling to strong purplish pink (55D), opening purplish pink (55) with strong red (50A) markings within throat; maturing to light purplish pink (65B), paling to pale purplish pink (65D), with markings on dorsal throat brilliant orange (29A). Lvs oblanceolate, 140 × 35 mm, glabrous. Late May-June.

'Elissa' cl. ('Purple Splendour' × 'Avalanche') **H, G** (1982), **N** & **I**: D. J. Dosser **REG**: 1986. Fls 18-22/truss, campanulate, 50 × 65 mm, deep purplish pink (73A), fading to very pale purple (73D) in centre, with a dark red (59A) blotch on dorsal lobe. Lvs elliptic, 220 × 60 mm. Shrub 2.0 m.

(a) **'Ell'** Syn. of 'Ellen Zora'.

(a) **'Ellen Zora'** cl. (Evergreen azalea: 'Elsie Lee' × 'Purple Splendor') **H**: M. E. Brykit, 1972 **G** (1980) & **N**: E. T. Anderson **REG**: 1986. Fls double, 1-2/truss, open funnel-shaped, 30 × 50 mm, with 5 + 8 + ± 3, wavy lobes, light reddish purple (74C), with heavy, strong purplish red spotting on dorsal lobes. Calyx 5 mm long, light green. Lvs elliptic, 13-25 × 7-13 mm, hairy. Shrub 0.4 × 0.8 m in 10 yrs. Syn. 'Ell'.

(v) **'Emmanuel'** cl. ((*zoelleri* × *javanicum*) × 'Doctor Herman Sleumer') **H** (1975), **G** (1979), **N** & **I** (1980): P. Sullivan **REG**: W. A. Moynier, 1986. Fls 8-11/truss, tubular funnel-shaped, 57 × 64 mm, 5-7-lobed, strong red (39A), shading gradually to light yellow (11B) in throat. Lvs narrowly elliptic to elliptic, 100 × 40 mm, glaucous and dark yellowish green above (139A), moderate yellow-green (147B) with tiny, closely spaced, tan scales below; margins wavy. Shrub 0.5 × 0.7 m in 7 yrs. March-July, September-December.

'Enticement' cl. ('Sunup-Sundown' × 'Lem's Cameo') **H** (1979), **G** (1983), **N** & **I** (1984): J. G. Lofthouse **REG**: 1986. Fls 9-12/truss, open funnel-shaped, 50-75 mm, with 5 wavy lobes, vivid red (52A) in bud, opening pale purplish pink (52C), with 7 mm edge of deep pink (52B), and three 7 mm wide rays of orange-brown spotting in dorsal throat, outside 52A. Calyx 13-25 mm long, ivory, flushed and streaked rose. Lvs narrowly elliptic to elliptic, 125-150 × 50-65 mm, dark, glossy green, glabrous. Shrub *c.* 0.9 × 1.0 m in 6 yrs. Early-mid May.

(a) **'Esme Lorraine'** cl. (Evergreen azalea: 'Exquisite' × 'Crimson Glory') **H, G** (1985), **N** & **I**: B. Smith **REG**: 1986. Fls single, 1-3/truss, funnel-shaped, 30 × 60 mm, deep purplish red (61A). Lvs elliptic, 40 × 15 mm. Shrub 0.3 m.

'Eyebright' cl. (*burmanicum hybrid*) **R** & **N**: L. Bublitz **REG**: A. Duncan, 1986. Sold by Duncan & Davies as *burmanicum*. Fls 8/truss, 45 × 60 mm, tubular funnel-shaped, primrose yellow (HCC 601/2), with a lemon yellow flare in dorsal throat; scented. Lvs elliptic, 60 × 35 mm, with brown scales. Compact shrub. October (New Zealand).

'Fernhill Silver' cl. (Selection from *arboreum*) Raised as a seedling by David Moore at Glasnevin Botanic Gardens, Dublin (19th century) **N**: E. C. Nelson, 1985 **I**: Mrs S. Walker **REG**: Mrs S. Walker & R. Walker, 1985. Fls *c.* 25/truss, tubular-campanulate, 30 × 30 mm, 5-lobed, rose pink, with darker markings. Calyx 1 mm long, green. Lvs elliptic-lanceolate, with silvery appressed indumentum below. Small tree to 7.0 m. April. Originally published under the illegitimate epithet 'Fernhill'.

(v) **'Fireplum'** cl. ((*phaeopeplum* × *lochiae*) × *zoelleri*) **H**: P. Sullivan **G** (1979): R. M. Withers **I**: G. L. S. Snell **REG**: 1986. Fls 6/truss, tube moderate yellowish pink (38B), inside of lobes deep yellowish pink (46D), outside deep pink (50B). Lvs elliptic, 70 × 40 mm. Shrub 2.0 m.

'Fisher's Folly' cl. (((Jalisco g. × Loderi g.) × *decorum*) × (Hawk g. × Albatross g.)) **R** at Greer Gardens **N** & **REG** (1986): J. R. Fisher. Fls 8/truss, open funnel-shaped, 101 mm wide, 6-7-lobed, yellowish white (155D), with light greenish yellow stripes (4B) which fade to pale yellow-green (4D); dorsal part of corolla striated and spotted moderate red (47A). Lvs 170 × 60 mm, mid green, glabrous. October (New Zealand).

'Fort Bragg Glow' cl. ('Ruby Bowman' × *elliottii*) **H** (pre-1966) & **G**: J. S. Druecker **N** & **I**: E. Philp **REG**: 1986. Fls 11-14/truss, open funnel-shaped, 50 × 125 mm, with 6 wavy lobes, strong purplish red (58C) to dark red (59A) deep in throat, with slight, dark red (59A) spotting on all lobes (heaviest on dorsal lobes). Calyx 7 mm long, 59A. Lvs elliptic, 150 × 50 mm, moderate olive green (146A). Shrub 2.2 × 2.9 mm in 15 yrs. Late April-early May.
'Fred Peste' cl. ((*yakushimanum* × 'Corona') × *haematodes*) **H**: F. Peste, 1971 **G**: F. & L. Peste, 1977 **N**: L. Peste **REG**: S. P. Johnston, 1986. Fls 14/truss, broadly funnel-campanulate, 53 × 75 mm, 5-lobed, strong red (53B), lower 7 mm of throat dark red (187B), spotting dark red (187A) on all lobes but especially on dorsal lobes. Calyx very small. Lvs narrowly elliptic, 75-95 × 25-30 mm, much darker than moderate olive green (147A) above, with heavy, moderate orange-yellow (164B) indumentum below. Shrub 0.8 × 1.0 m in 14 yrs. Mid May.

(a) **'Galle's Choice'** cl. (Deciduous azalea: *calendulaceum* × *alabamense*) **H, G** (1970) & **N**: F. C. Galle **REG**: 1986. Fls 4-7/truss, narrow tubular funnel-shaped, 25 × 45 mm, with 5 wavy, reflexed lobes, light yellow (11B), with white throat, pink tips and a vivid yellow (16A) blotch, outside white. Calyx 3 mm long, green. Lvs between oblanceolate and narrowly obovate, 85-95 × 35-40 mm, strong yellow-green (143B) above, ciliate, hairy; yellowish in autumn. Shrub 3.0 × 3.0 m in 15 yrs. Late May.

(a) **'Gay Divorcee'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) × 'Womans Day') **H, G** (1980), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 60 × 100 mm, with frilled lobes and a twisted central core of petals, pale yellowish pink (36D). Lvs elliptic, 75 × 20 mm. Shrub 1.5 m. Indian.

'Gene's Favourite' cl. (Jalisco g. × Albatross g.) **G**: W. S. Reuthe, 1960 **S** (1960) & **N**: E. W. Reuthe **I** (1965) & **REG** (1985): G. Reuthe Ltd. Fls 15/truss, 75 × 50 mm, 5-lobed, deep pink (50B) and pale orange-yellow (24D), with blotch of deep red (185A) and with a rose-like scent. Calyx 5 mm long, light yellow (160B) and moderate yellowish pink (179D). Lvs elliptic, 140-155 × 45-50 mm, glabrous.

'Golden Wedding' cl. (*yakushimanum* × 'Mrs Lammot Copeland') **H**: H. L. Larson, 1969 **G** (1975), **N** & **I** (1980): J. A. Davis **REG**: 1986. Fls 10-14/truss, open funnel-shaped, 45 × 70 mm, with 7 wavy lobes, moderate reddish orange (35B) in bud, opening light yellow (15D), with 2 slight, dorsal, 35B rays; fl has slight orange flush at first, which fades to golden yellow. Calyx very small. Lvs elliptic, 120 × 50 mm, glabrous. Shrub 0.8 × 0.8 m. Mid May.

'Gottfreid Peste' cl. (*yakushimanum* × 'Rodeo') **H**: F. Peste, 1979 **G**: F. & L. Peste, 1984 **N**: L. Peste **REG**: S. P. Johnston, 1986. Fls 15/truss, broadly funnel-campanulate, 55 × 70 mm, with 5 wavy lobes, strong purplish red (58B), opening pale purplish pink (56C), with 7 mm edge of deep purplish pink (55A) and very heavy dorsal spotting of deep red (60A); outside 55A. Calyx very small. Lvs narrowly elliptic, 100-140 × 30-40 mm, moderate olive green (147A) above, with a light to medium, plastered, pale orange-yellow (greyed) indumentum below. Shrub 0.7 × 0.8 m in 6 yrs. Early-mid May.

'Green Shade' cl. ('Freckle Pink' × an apricot-fld seedling) **H, G** (1985), **N** & **I**: K. van de Ven **REG**: 1986. Fls 15-17/truss, funnel-shaped, 50 × 60 mm, yellowish white (155D), flushed yellow-green on inside of all petals. Lvs elliptic, 150 × 50 mm. Shrub 1.0 m.

(a) **'Greenwood Cherry'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **G** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls hose-in-hose, 1-2/truss, open funnel-shaped, 40 × 50 mm, 5 + 5-lobed, plus some petaloid stamens, deep yellowish pink (46D), with a blotch of spots on dorsal lobe. Calyx 40 mm long, coloured as corolla. Lvs ± elliptic to ± broadly elliptic, 22-40 × 13-22 mm, glossy, moderate olive green (146A), hairy. Shrub 0.4 × 0.4m in 6 yrs. Early May. Syn. 'Cherry'. Greenwood Hybrid.

(a) **'Greenwood Jackpot'** cl. (Evergreen azalea: 'Marie Elena' × 'Linda Jean') **H** (1975), **G** (1979), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 2/truss, double (± 23-lobed), broadly funnel-shaped, 25 × 50 mm, deep pink (47D), with red dorsal spotting. Calyx 7 mm long, green. Lvs broadly elliptic to elliptic, 20-30 × 13-17 mm, ± moderate olive green (147A), glossy, hairy. Shrub 0.2 × 0.6 m in 6 yrs, creeping. Syn. 'Jackpot'. Greenwood Hybrid.

(a) **'Greenwood Popcorn'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, semi-double and hose-in-hose (5+5-lobed, plus some petaloid stamens), funnel-shaped, 30 × 50 mm, white. Calyx 30 mm long, coloured as corolla. Lvs elliptic to ± broadly elliptic, 25-40

× 17-25 mm, ± moderate olive green (146A), glossy, hairy. Shrub 0.4 × 0.6 m in 6 yrs. Syn. 'Popcorn'. Greenwood Hybrid.

(a) **'Greenwood Rosebud'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **G** (1975), **G** (1979), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 2-4/truss, double (± 20-lobed), open funnel-shaped, 30 × 55 m, strong purplish pink (68B); buds rose-bud shape. Lvs elliptic, 22-45 × 13-20 mm, ± moderate olive green (146A), glossy, hairy. Shrub 0.3 × 0.35 m in 5 yrs. Greenwood Hybrid.

(a) **'Greenwood Rose Queen'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double and hose-in-hose (16-lobed, most stamens petaloid), broadly funnel-shaped, 30 × 65 mm, deep purplish pink (64D). Calyx 30 mm long, coloured as corolla. Lvs ± narrowly obovate, 25-35 × 13-20 mm, ± moderate olive green (146A), glossy, hairy. Shrub 0.35 × 0.6 m in 6 yrs. Syn. 'Rose Queen'. Greenwood Hybrid.

(a) **'Greenwood Rosy-Red'** cl. (Evergreen azalea: 'Linda Jean' × 'Hexe') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double and hose-in-hose, (5+5-lobed, plus petaloid stamens), broadly funnel-campanulate, 30 × 55 mm, strong purplish red (58B), with deeper red throat. Calyx 25 mm long, coloured as corolla. Lvs ± elliptic to ± narrowly obovate, 20-40 × 11-22 mm, ± moderate olive green (147A), glossy, hairy. Shrub 0.25 × 0.4 m in 6 yrs. Greenwood Hybrid.

(a) **'Greenwood Showboat'** cl. (Evergreen azalea: 'Linda Jean' × 'Hexe') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double and hose-in-hose (5+5-lobed, plus petaloid stamens), tubular campanulate, 30 × 50 mm, vivid purplish red (57D). Calyx 25 mm long, coloured as corolla. Lvs ± elliptic, 20-25 × 11-13 mm, ± moderate olive green (146A), glossy, hairy. Shrub 0.25 × 0.5 m in 6 yrs. Syn. 'Showboat'. Greenwood Hybrid.

(a) **'Greenwood White'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, hose-in-hose (5+5-lobed), funnel-shaped, 40 × 50 mm, white, with pale yellow throat and slight dorsal spotting. Calyx 40 mm long, coloured as corolla. Lvs elliptic to ± narrowly obovate, 22-45 × 13-25 mm, ± moderate olive green (147A), ± glossy, hairy. Shrub 0.3 × 0.4 m in 6 yrs. Greenwood Hybrid.

(a) **'Greenwood Yukon'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **H** (1975), **G** (1979), **N** & **I** (1981): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double (13-lobed, with some functional stamens), broadly funnel-shaped, 40 × 50 mm, white, with pale greenish yellow throat and slight dorsal spotting. Calyx 3 mm long, green. Lvs elliptic to ± broadly elliptic, 22-40 × 13-20 mm, ± strong yellow-green (144A), hairy. Shrub 0.45 × 0.55 m in 6 yrs. Syn. 'Yukon'. Greenwood Hybrid.

'Haida Gold' cl. (*wardii* × Goldfort g.) **H**: Bovee Mayo Seed Co., 1961 **G** (1968), **N** & **REG** (1985): R. C. Rhodes **I**: Clay's Nurseries, 1983. Fls 10/truss, open funnel-shaped, 30-50 × 80-100 mm, 7-lobed, light greenish yellow (3D), with light yellow-green throat. Lvs 100 × 40 mm, glabrous. Shrub under 2.0 m in 24 years.

(a) **'Halo'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, hose-in-hose (5+5-lobed), open funnel-shaped, 45 × 65 mm, white, with pale yellow throat and slight dorsal spotting. Calyx 45 mm long, coloured as corolla. Lvs broadly elliptic, 22-40 × 17-25 mm, ± moderate olive green (146A), glossy, hairy. Shrub *c.* 0.3 × 0.5 m in 6 yrs. Greenwood Hybrid.

(a) **'Happy Anniversary'** cl. (Evergreen azalea: parentage unknown) **H**, **G** (1975), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 25 × 75 mm, light yellowish pink (38D). Lvs elliptic, 25 × 15 mm. Shrub 2.0 m. Indian.

(a) **'Hardy Hexe'** cl. (Evergreen azalea: 'Linda Jean' × 'Hexe') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, hose-in-hose (5+5-lobed), tubular funnel-shaped, 25 × 50 mm, strong purplish red (58B), with darker red dorsal spotting. Calyx 40 mm long, coloured as corolla. Lvs ± broadly elliptic to elliptic, 30-50 × 20-25 mm, ± moderate olive green (146A), glossy, hairy, slightly bullate. Shrub 0.5 × 0.45 m in 6 yrs. Greenwood Hybrid.

'Hasgard' cl. ((Barclayi g.) 'Avis' × *strigillosum*) **H**, **G** (1978), **N** & **I**: J. A. Watts **REG**: 1986. Fls 8-10/truss, campanulate, 70 × 50 mm, strong red (46A). Lvs lanceolate, 110 × 30 mm. Shrub 1.5 × 1.3 m.

(a) **'Hilda May'** cl. (Deciduous azalea: parentage unknown) **H** & **G** (1971): W. Simpson **I**: F. R. Waghorn **REG**: 1986. Fls single, 10-15/truss, tubular funnel-shaped, 90 × 50 mm,

5-7-lobed, deep pink (52C), with a vivid yellow (13A) flare on dorsal lobe. Lvs elliptic, 140 × 45 mm. Shrub 2.0 m.

'Homestead' cl. (*griersonianum* × 'Ilam Alarm') **H**: E. F. Stead **G**: G. Huthnance & Pukeiti Rhododendron Trust **N** (1978) & **REG** (1985): G. F. Smith **I**: G. Huthnance. Fls 16-18/truss, funnel-shaped, 55 × 75 mm, 5-lobed, cardinal red (HCC 822/2), with deeper dorsal spotting. Calyx 2 mm long, red. Lvs elliptic-lanceolate, 150 × 35 mm, dark matt green above, with silvery indumentum below. Shrub up to at least 3.0 × 3.5 m. October (New Zealand).

'Ightham Gold' cl. (Unknown; believed to be a *wardii* hybrid) **R** & **N**: W. S. Reuthe **I** (1981) & **REG** (1985): G. Reuthe Ltd. Fls 9/truss, 40 × 60 mm, 5-lobed, light yellow-green (2C), with blotch deep red (185A). Calyx 5 mm long, coloured as corolla. Lvs elliptic, 85-95 × 40-50 mm, glabrous. Very late yellow.

(a) **'Ilam Carmen'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead and J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls campanulate, 75-80 mm wide, light orange, overlaid coral, with golden flare. Lvs narrowly ovate, 115-125 × 35-40 mm, shiny mid green and hairy above, paler below, but not glaucous.

(a) **'Ilam Chartreuse'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls campanulate, 80-85 mm wide, greenish in bud, opening pale yellow with hint of green and a light orange flare. Lvs narrowly ovate, 115-125 × 45-50 mm, light green and roughly hairy above, paler below, but not glaucous. Shrub 1.3 m. Late.

(a) **'Ilam Jasper'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls 14-16 in a loose, rounded truss, 50-55 mm wide, campanulate, vermilion, overlaid scarlet, with a scarlet flare. Lvs narrowly ovate/lanceolate, 100 × 25-30 mm, light green above, slightly glaucous below. Shrub 1.4 m. Mid season.

(a) **'Ilam Louie Williams'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls in large rounded trusses, 75-80 mm wide, campanulate, pale creamy pink, overlaid rose, with a pale golden flare. Lvs narrowly ovate, 120-130 × 35-40 mm, light green and rough to rugose above, glaucous below. Shrub 1.2 m. Mid season.

(a) **'Ilam Martie'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls campanulate, 65-70 mm wide, scarlet red, with an orange-red flare. Lvs narrowly ovate, 80-85 × 30-35 mm, light green above, glaucous below, hairy. Shrub 1.3 m. Late.

(a) **'Ilam Melford Beauty'** cl. (Deciduous azalea: parentage unknown). **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls up to 30/large rounded truss, campanulate 75-80 mm wide, pale orange, overlaid pink, with golden orange flare. Lvs ovate, 80-85 × 35-40 mm, dark green, rough and deeply veined above, mid green below. Shrub 1.4 m. Mid-late season.

(a) **'Ilam Melford Flame'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls in a large compact truss, campanulate, 70-75 mm wide, deep indian orange, with a golden flare. Lvs narrowly ovate, 120-130 × 45-50 mm, mid green and rough to rugose above, glaucous below. Shrub 1.4m. Mid season.

(a) **'Ilam Melford Gold'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls 13-14/compact truss, campanulate, 75-80 mm wide, creamy gold, overlaid deeper gold and pink, with orange flare on dorsal lobe. Lvs narrowly ovate to lanceolate, 115-120 × 35-40 mm, mid green and rugose above, pale green below. Shrub 1.4 m. Mid season.

(a) **'Ilam Melford Lemon'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls 10-12/large truss, campanulate, 80-85 mm wide, lemon yellow, with buttery golden flare on dorsal lobe. Lvs narrowly ovate, 105-110 × 35-40 mm, dark green, rough and rugose above, light green below. Shrub 1.5 m. Early.

(a) **'Ilam Melford Red'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls 14-16 in a loose rounded truss, campanulate, 70-75 mm wide, orange scarlet, with an orange flare.Lvs narrowly ovate, 115-125 × 30-35 mm, mid green and roughly hairy above, slightly glaucous below. Shrub 1.4 m. Mid season.

(a) **'Ilam Melford Salmon'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls 10/compact truss, campanulate, 70-75 mm wide, pale yellow, overlaid salmon pink, with an orange dorsal flare. Lvs narrowly ovate, 115-125 × 40-45 mm, dark green and glossy above, distinctly glaucous below, hairy. Shrub 1.4 m. Mid season.

(a) **'Ilam Melford Yellow'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls 10-11 in a compact truss, campanulate, 65-70 mm wide, clear yellow, with a deep golden yellow dorsal flare. Lvs narrowly ovate to lanceolate, 120-130 × 30-35 mm, mid green and rough above, pale green below. Shrub 1.4 m. Mid-late.

(a) **'Ilam Ming'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls campanulate, 85-90 mm wide, coppery orange, with light pink overtone and a golden flare on dorsal lobe. Lvs narrowly ovate, 120-130 × 35-40 mm, dark green and rough above, light green below. Shrub 1.4 m. Early-mid season.

(a) **'Ilam Persian Rose'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N** & **I** (1975): Duncan & Davies Ltd **REG**: 1986. Fls in large compact trusses, campanulate, 85-95 mm wide, deep rose pink, with a large golden orange dorsal flare. Lvs narrowly ovate, 115-130 × 55-60 mm, dark green, rough and rugose above, hairy and glaucous below. Shrub 1.4 m. Mid season.

(a) **'Ilam Red Ball'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls 14-16 in a compact, ball-like truss, campanulate, 65-70 mm wide, deep orange, with a scarlet overtone, no significant flare. Lvs narrowly ovate, 105-115 × 40-45 mm, dark green and roughly hairy above, slightly glaucous below. Shrub 1.5 m. Late.

(a) **'Ilam Red Frills'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls campanulate, 70-75 mm wide, deep scarlet red, with an orange flare, frilled. Lvs narrowly ovate, 75-85 × 35-40 mm, light green and rough above, pale green below. Shrub 1.5 m. Early-mid season.

(a) **'Ilam Red Gem'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls 11-12 in a loose, rounded truss, campanulate, 65-70 mm wide, deep crimson, with an orange scarlet dorsal flare. Lvs narrowly ovate to lanceolate, 110-120 × 25-30 mm, dark green and rough above, glaucous below. Shrub 1.4 m. Early-mid season.

(a) **'Ilam Red Giant'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1975 **REG**: 1986. Fls 16-18 in a large, rounded truss, campanulate, 70-75 mm wide, clear scarlet, with an orange dorsal flare. Lvs narrowly ovate to lanceolate, rough above, pale green below.

'Ilam Red Glow' cl. (Selection from Scarlet King g.) **H** (pre-1950) & **G**: E. F. Stead **REG**: G. F. Smith, 1986. Fls 16-18/truss, funnel-shaped, 60 × 70 mm, 5-lobed, turkey red (HCC 721/2), with darker spotting across upper lobes; pedicels red, glandular. Calyx 2 mm long, red. Lvs elliptic-lanceolate, 130-150 × 40 mm, with a thin, plastered, silvery grey indumentum. Shrub 3.0 × 3.0 m. October-November (New Zealand).

(a) **'Ilam Yellow Beauty'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls up to 30 in a large truss, campanulate, 65-70 mm wide, creamy yellow, overlaid coral, with a golden flare. Lvs narrowly ovate, 85-95 × 35-40 mm, mid green and rough above, glaucous below. Shrub 1.5 m. Early.

(a) **'Ilam Yellow Giant'** cl. (Deciduous azalea: parentage unknown) **R**: E. F. Stead & J. S. Yeates **N**: J. S. Yeates **I**: Duncan & Davies Ltd, 1974 **REG**: 1986. Fls in a large, rounded truss, campanulate, 80-85 mm wide, pale chrome yellow, flushed deeper yellow, with a golden flare. Lvs narrowly ovate, 105-115 × 45-50 mm, rough and rugose above, slightly glaucous below. Shrub 1.5 m. Mid-late.

'Inez May' cl. ('Loderi King George' × 'Phyle Donegan') **H, G** (1975), **N** & **I**: W. McClure **REG**: 1986. Fls 6-8/truss, funnel-shaped, pale purplish pink (56A) inside, strong purplish pink (55B) outside, with brown spots on dorsal lobe. Lvs oblanceolate, 120 × 40 mm. Shrub 1.2 m.

(a) **'Irene Cook'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, hose-in-hose and semi-double (5+5-lobed, plus 5 petaloid stamens), funnel-shaped, 40 × 50 mm, strong purplish pink (62A). Calyx 40 mm long, coloured as corolla. Lvs ± broadly elliptic to ±

elliptic, 28-53 × 20-30 mm, ± moderate olive green (146A), very glossy, somewhat bullate, hairy. Shrub 0.5 × 0.6 m in 6 yrs. Greenwood Hybrid.

(a) **'Jack Frost'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) × 'Womans Day') **H, G** (1973), **N & I**: I. C. Nichols **REG**: 1986. Fls single, 2-3/truss, funnel-shaped, 50 × 100 mm, white, with yellow basal flush on some lobes; lobes frilled; no stamens. Lvs elliptic, 25 × 15 mm. Shrub 0.5 m. Indian.

(a) **'Jackpot'** Syn. of 'Greenwood Jackpot'.

(a) **'Jan Byrne'** cl. (Evergreen azalea: 'Marilyn Kay' × 'Ambrosius Superbum') **H, G** (1984), **N & I**: D. J. Dosser **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 50 × 90 mm, strong red (53C). Lvs elliptic, 40 × 25 mm. Shrub 0.5 m. Indian.

(a) **'Jenny Mac'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) × 'Madame Auguste Haerens') **H, G** (1965), **N & I**: I. C. Nichols **REG**: 1986. Fls hose-in-hose, 2-3/truss, funnel-shaped, 50 × 75 mm, deep pink (48A), with wavy lobes; no stamens. Lvs elliptic, 50 × 20 mm. Shrub 1.5 m. Indian.

(a) **'July Joy'** cl. (Deciduous azalea: *prunifolium* × *arborescens*) **H** (1961), **G** (1967) & **N**: D. G. Leach **REG**: 1985. Fls 6/truss, 35 × 42 mm, 5-lobed, strong pink (49A), flushed moderate pink (48B) on edges of lobes, with brilliant orange (25C) dorsal blotch. Calyx 5 mm long, green. Lvs elliptic to narrowly elliptic, 52-70 × 25-26 mm, glaucous below, glabrous.

(a) **'June'** cl. (Evergreen azalea: 'Marie Elena' × 'Linda Jean') **H** (1975), **G** (1979), **N & I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double (13-lobed, stamens all petaloid), open funnel-shaped, 25 × 55 mm, deep pink (50B), throat light red, spotting on dorsal lobes. Calyx 3 mm long, green. Lvs ± elliptic to ± broadly elliptic, 22-30 × 13-20 mm, ± moderate olive green (147A), glossy, somewhat bullate, hairy. Shrub 0.35 × 0.85 m in 6 yrs. Greenwood Hybrid.

'Kaka' cl. (Selection from Scarlet King g.) **H** (pre-1950) & **G**: E. F. Stead **REG**: G. F. Smith, 1986. Fls 12-14/truss, funnel-shaped, 60 × 80 mm, 5-lobed, turkey red (HCC 721/2), with darker spotting in upper throat; lobes frilled; pedicels red, covered with white indumentum. Calyx 3 mm long, red. Lvs elliptic-lanceolate, 120 × 35 mm, with very thin, grey-green, plastered indumentum. Shrub up to 2.0 × 3.0 m. November-December (New Zealand).

'Katy Hurley' cl. (*souliei* × 'Idealist') **H & G**: A. E. Hardy **N & REG**: G. A. Hardy, 1985. Fls 9-10/loose, open truss, saucer-shaped, up to 70 × 115 mm, 5-lobed, white, flushed red-purple. Calyx greenish white, up to 4 mm long. Lvs ovate-orbicular, up to 135 × 70 mm, dark green, glabrous below. **A.M.** 1985.

(a) **'Katy's Plum'** cl. (Deciduous azalea: a Knap Hill azalea × *flammeum*) **H** (1972), **G** (1978) & **N**: F. C. Galle **REG**: 1986. Fls 7-10/truss, tubular funnel-shaped to broadly funnel-shaped with a narrow tube, 30 × 65 mm, with 5 wavy lobes, strong pink (50C), flushed red, with a strong orange (25A) dorsal blotch. Calyx 3 mm long, green. Lvs elliptic, 75-100 × 25-45 mm, strong yellow-green (143B) above, ciliate, hairy. Shrub 1.9 × 1.5 m in 15 yrs. Late April-early May.

(a) **'Kelly's Orange'** cl. (Deciduous azalea: *flammeum* × 'Cecile') **H** (1972), **G** (1977) & **N**: F. C. Galle **REG**: 1986. Fls 3-5/truss, narrow tubular funnel-shaped, 25 × 65 mm, with 5 wavy lobes, vivid reddish orange (30A), with yellow dorsal blotch. Calyx 7 mm long, green. Lvs between elliptic and oblanceolate, 70-108 × 30 mm, moderate yellowish green (138A), ciliate, hairy. Shrub 1.5 × 1.2 m in 11 yrs. Mid-late April.

'King's Cerise' cl. (*ponticum* × *griersonianum*) **H** (1952), **G & N**: H. W. King **I & REG** (1985): H. W. King & Co. Ltd. Fls in large, tight trusses, bright cerise. Lvs glabrous. Shrub to 1.5 m.

(a) **'King's Choice'** cl. (Evergreen azalea: 'Exquisite' × 'Crimson Glory') **H, G** (1985), **N & I**: B. Smith **REG**: 1986. Fls single, 2-3/truss, funnel-shaped, 40 × 50 mm, vivid purplish red (57C), with a moderate red flare (47A). Lvs elliptic, 35 × 15 mm. Shrub 0.3 m.

'Lady Dorothy Ella' cl. (*lindleyi* × *nuttallii*) **R & N**: Duncan & Davies Ltd, pre-1984 **REG**: 1986. Fls broadly tubular funnel-shaped, ivory white, flushed pink externally, with basal golden flare in throat, very fragrant. Shrub up to *c.* 4.0 m.

'Lemon Grove' cl. (*wardii* hybrid) **H** (1960), **G** (1965) & **N**: W. S. Reuthe **I** (1967) & **REG** (1985): G. Reuthe Ltd. Fls 9/truss, 45 × 60 mm, 5-lobed, throat light greenish yellow (1C), lobes pale greenish yellow (1D), blotch brilliant greenish yellow (5B). Calyx 13

mm long, light greenish yellow (5C). Lvs elliptic, 90-100 × 45-50 mm, glabrous. Medium to large bush.

'Leona Holmes' cl. (('Boule de Neige' × *fortunei*) × Rock no. 18139 (*vernicosum* aff.))) **H** (1967), **G** (1976) & **N**: W. M. Fetterhoff **REG**: 1986. Fls 10-12/truss, broadly funnel-shaped, 30 × 60 mm, with 7 slightly wavy lobes, strong pink (48C) in bud, opening moderate yellowish pink (38B) shading to pale yellowish pink (27C) in lobe centres and in throat, with a light orange-yellow (16C) dorsal blotch (*c.* 20 × 20 mm) and two rays of medium red extending through blotch (blotch and rays fade with age); outside with strong pink ribs (54C). Calyx very small. Lvs near elliptic to ± narrowly obovate, 70-95 × 32-43 mm, moderate olive green (146A), glabrous. Shrub 0.6 × 1.1 m in 18 yrs. Mid-late May.

'Leonie Pink' cl. (Parentage unknown) **G** (1982), **N** & **I**: J. Faull **REG**: 1986. Fls 15-18/truss, funnel-shaped, 50 × 70 mm, strong purplish pink (55B), striped deep purplish pink (55A), with a strong yellow-green blotch (145A) on dorsal lobe. Lvs elliptic, 130 × 40 mm. Shrub 2.0 m.

(a) **'Les's Penny'** cl. (Deciduous azalea: parentage unknown) **H** & **G** (betw. 1950-1960): L. Horsborough **N** & **I**: F. R. Waghorn **REG**: 1986. Fls 15-18/truss, tubular funnel-shaped, 45 × 60 mm, brilliant orange (29A), flushed strong red (41B) on both sides of lobes. Lvs elliptic, 80 × 30 mm. Shrub 2.0 m.

'Lionel's First' cl. (*lacteum* × *sutchuenense*) **H** (*c.* 1920) & **G** (*c.* 1930): L. de Rothschild **N**, **I** & **REG**: E. de Rothschild, 1985. Fls 16/truss, 60 × 67 mm, 5-lobed, pale purplish pink (62D), with light purplish pink (63D) spots, darkening to strong purplish pink (63C) on outside; dark red markings (59A) in throat. Lvs oblong-lanceolate, 175 × 65 mm, glabrous. Tall shrub. Mid April.

(a) **'Lorraine'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) hybrid) **H**, **G**(1965), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 45 × 75mm, deep purplish pink (55A), flushed strong red (46A); no stamens. Lvs elliptic, 50 × 20 mm. Shrub 1.5 m. Indian.

'Madah Jean' cl. (Open-pollinated 'Marinus Koster') **H** (1962) & **G** (1970): P. Newberry **N**, **I** & **REG** (1986): E. Philp. Fls 12-14/truss, open funnel-shaped, 140 mm wide, with 5 wavy lobes, rose red (HCC 724/3) in bud, opening phlox pink (625/3), edged and outside rose bengal (25/1), spotted indian lake (826/2) on dorsal lobe. Calyx 20 mm long, yellowish green (763/1). Lvs lanceolate, 225 × 90 mm, moderate olive green (147A). Shrub 2.2 × 2.9 mm in 13 yrs. Mid May.

'Maria's Choice' cl. ('Apricot Gold' × 'Lem's Cameo') **H**, **G** (1985), **N** & **I**: K. van de Ven **REG**: 1986. Fls double, 15-18/truss, funnel-shaped, 75 × 100 mm, light yellow (15D), lobes moderate yellowish pink (38B). Lvs elliptic, 130 × 50 mm. Shrub 1.0 m.

(a) **'Martha Gardner'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) hybrid) **H**, **G** (1975), **N** & **I**: I. C. Nichols **REG**: 1986. Fls hose-in-hose, 2-3/truss, funnel-shaped, 40 × 65 mm, vivid reddish orange (34A); no stamens. Lvs elliptic, 40 × 15 mm. Shrub 2.0 m. Indian.

(a) **'Mary Allen'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double (12-lobed, no functional stamens), broadly funnel-shaped, 25 × 45 mm, pale purplish pink (56A). Calyx 20 mm long, coloured as corolla. Lvs between elliptic and broadly elliptic, 22-40 × 13-22 mm, ± strong yellow-green (144A), hairy. Shrub 0.35 × 0.5 m in 6 yrs. Greenwood Hybrid.

(a) **'Mary Anne Elmer'** cl. (Deciduous azalea: 'Orangeade' × *austrinum*) **H** (1966), **G** (1977), **N** & **I** (1982): G. & T. Elmer **REG**: 1986. Fls 10/truss, broadly funnel-shaped, 75 × 65 mm, with 5 somewhat reflexed, wavy lobes, strong orange-yellow (24B), lobe tips vivid yellowish pink (30C), with a strong orange blotch (25A); outside vivid reddish orange (33B). Calyx minute, green. Lvs elliptic to somewhat oblanceolate, 90-95 × 25-40 mm, hairy. Shrub 1.5 × 1.2 m in 15 yrs. Mid-late April (southern USA). Chinquapin Hill.

'Mary Chantry' cl. (*yakushimanum* × 'Britannia') **H**: L. E. Brandt, 1966 **G**: M. Chantry, early 1970s **N** & **REG** (1986): L. Malland **I**: Griswold Nursery, 1973/4. Fls 12/truss, open funnel-campanulate, 65 × 50 mm, with 5 wavy lobes, strong purplish pink (55B). shading to pale purplish pink (55D) at centre of lobes and in throat, with deep purplish pink (55A) dorsal spotting; buds strong purplish pink (55B). Calyx very small. Lvs oblanceolate to narrowly elliptic, 115-175 × 40-50 mm, moderate olive green (146A), with a medium amount of moderate orange-yellow (165C) indumentum below. Shrub 0.8 × 0.6-0.8 m, in 8-10 yrs. Late May.

'Melville' cl. (('Countess of Derby' × 'Loderi Venus') × Fabia) **H**: P. Wiseman **G**

(1959), **N** & **I** (1969): Waterers Nurseries, Bagshot **REG**: 1986. Fls 8-12/truss, tubular funnel-shaped, 40 × 60 mm, 5-lobed, strong red (46A) in bud, opening vivid red (46C). Calyx 5 mm long, vivid red (46B). Lvs elliptic, 140 × 55 mm, with very slight fawn indumentum. Shrub up to 2.5-3.0 m. Mid-late June.

'Mrs Helen Jackson' cl. (*yakushimanum* Koichiro Wada' × *chlorops*) **H**: F. Bump, 1966 **G** (1972) & **N**: G. H. Kesterson **REG**: 1986. Fls 13-14/truss, broadly funnel-shapd, 30 × 90 mm, with 7 wavy lobes, pale yellowish pink (36D) in bud, opening yellowish white (155D), with strong greenish yellow (151C) dorsal spotting. Calyx *c.* 1.5 mm long, strong greenish yellow (151B). Lvs between oblanceolate and narrowly obovate, *c.* 90-115 × 40-50 mm, moderate olive green (137A) above, with very light, patchy, tan indumentum below. Shrub 1.2 × 1.2 m in 19 yrs. Late April.

'Mulroy Vanguard' cl. (*thomsonii* × Vanguard g.) **H** 8 **G**: Earl of Leitrim, pre-1952 **N** & **REG**: M. Forrest, 1985. Fls 7-10/truss, funnel-campanulate, 5-lobed, 50 × 60 mm, vivid red (46B), spotted on dorsal lobes and with dark nectar pouches. Calyx irregular, 2-5 mm long, dark red. Lvs elliptic, 130-140 × 50-60 mm, glabrous. Shrub up to 3.0 m.

(a) **'My Mother's Day'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) hybrid) **H**, **G** (1976), **N** & **I**: I. C. Nichols **REG**: 1986. Fls 1-2/truss, funnel-shaped, 40 × 65 mm, white, with a strong yellow-green (144B) blotch. Lvs elliptic, 25 × 15 mm. Shrub 1.0 m. Indian.

(a) **'Myrtle de Friel'** cl. (Evergreen azalea: *nakaharae* × 'Rosebud' (Gable)) **H**, **G** (1979), **N** & **I** (1982): W. O. Griswold **REG**: 1986. Fls hose-in-hose and double, 2-3/truss, tubular funnel-shaped, 30 × 70 mm, with 5 + 5 + 5 or less, wavy lobes, deep purplish pink (55B), with slight strong purplish pink (55A) dorsal spotting, outside 55A; centre of fl. quite open with up to 2 normal stamens present. Calyx as corolla. Lvs narrowly elliptic, 40 × 13 mm, moderate olive green (146A), strigose hairs on veins below. Shrub 0.1 × 0.25 m in 3 yrs. Early June.

'Natalie Murray' cl. ('Marion' × 'Christmas Cheer') **H** & **G** (1975): V. J. Boulter **I**: F. Boulter **REG**: 1986. Fls 15-20/truss, funnel-shaped, 70 × 40 mm, light pink (39D), fading to centre, with yellow-green spotting on dorsal lobe. Lvs oblanceolate, 70 × 30 mm. Shrub 1.0 m.

(a) **'Nellie Gatehouse'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian)) × 'Madame Auguste Haerens') **H**, **G** (1965), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 70 × 50 mm, deep pink (52C). Lvs elliptic, 45 × 15 mm. Shrub 1.5 m. Indian.

'New Orleans' cl. (Unnamed hybrid (67-LL-6) × 'Casanova') **H** (1976), **G** (1982) & **N**: D. G. Leach **REG**: 1985. Fls 16/truss, 45 × 50 mm, 5-lobed, buds flushed moderate yellowish pink (39C), opening pale yellow (11C), deepening to light yellow (11B) in centre, with fine spotting of reddish brown on dorsal lobe. Calyx minute, green. Lvs elliptic, 120 × 56 mm, glabrous.

'Nightingale' cl. (*decorum* × 'Purple Splendour') **G**: W. S. Reuthe, 1962 **S** (1962) & **N**: E. W. Reuthe **I** (1967) & **REG**: (1985): G. Reuthe Ltd. Fls 8/truss, 70 × 90 mm, 5-lobed, very light purple (76B) to strong purple (77B), with dark red (187A) blotch. Calyx 2 mm long, light yellow-green (145C). Lvs elliptic, 120 × 45-50 mm, glabrous. Large bush.

(a) **'North Pole'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, semi-double and hose-in-hose (5 + 5-lobed, plus some petaloid stamens), tubular funnel-shaped, 40 × 50 mm, white. Calyx 45 mm long, coloured as corolla. Lvs elliptic, 25-30 × 10-17 mm, ± moderate olive green (146A), glossy, hairy. Shrub 0.45 × 0.8 m in 6 yrs. Greenwood Hybrid.

(a) **'Olinda Bushfire'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1970-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 10-12/truss, funnel-shaped, 80 × 60 mm, vivid reddish orange (43B). Lvs elliptic, 100 × 40 mm. Shrub 2.0 m.

(a) **'Olinda Candy'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1960-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 13-16/truss, funnel-shaped, 60 × 40 mm, deep pink (52C), with a vivid reddish orange (30B) flare on 3 dorsal lobes; lobes frilled. Lvs elliptic, 100 × 40 mm. Shrub 1.0 m.

(a) **'Olinda Cecile'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) (betw. 1960-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**:

1986. Fls single, 10-15/truss, tubular funnel-shaped, 60 × 50 mm, strong pink (52D), with brilliant yellow (14C) dorsal flare. Lvs elliptic, 120 × 60 mm. Shrub 1.0 m.

(a) **'Olinda Fire Red'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1970-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 16/truss, tubular funnel-shaped, 70 × 70 mm, vivid reddish orange (43A). Lvs elliptic, 120 × 60 mm. Shrub 2.0 m.

(a) **'Olinda Flame'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1970-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 15/truss, tubular funnel-shaped, 70 × 40 mm, vivid reddish orange (42A). Lvs elliptic, 120 × 40 mm. Shrub 2.0 m.

(a) **'Olinda Glow'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1970-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 18/truss, tubular funnel-shaped, 60 × 50 mm, vivid reddish orange (43A). Lvs elliptic, 100 × 40 mm. Shrub 2.0 m.

(a) **'Orange Gold'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1960-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 18-20/truss, tubular funnel-shaped, 70× 40 mm, vivid yellow (15A). Lvs elliptic, 80 × 40 mm. Shrub 1.0 m.

(a) **'Olinda Gypsy'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 196-80) & **I**: Australian Rhododendron Society, Victorian ranch **REG**: 1986. Fls single, 13-15/truss, funnel-shaped, 70 × 50 mm, deep pink (52C), with an orange flare and frilled lobes. Lvs elliptic, 110 × 50 mm. Shrub 1.0 m.

(a) **'Olinda May'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1960-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 8-10/truss, tubular funnel-shaped, 90 × 40 mm, vivid reddish orange (43B), with an orange flare on dorsal lobe and darker margins. Lvs elliptic, 100 × 40 mm. Shrub 1.5 m.

(a) **'Olinda Orange'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1970-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 18-20/truss, tubular funnel-shaped, 60 × 50 mm, vivid reddish orange (32A). Lvs elliptic, 120 × 50 mm. Shrub 2.0 m.

(a) **'Olinda Rose'** cl. (Deciduous azalea: grown from open-pollinated Ilam seed from New Zealand) **G** (betw. 1970-80) & **I**: Australian Rhododendron Society, Victorian Branch **REG**: 1986. Fls single, 10-14/truss, tubular funnel-shaped, 50 × 90 mm, deep pink (52C), with dorsal flare of strong orange (25A). Lvs elliptic, 110 × 40 mm. Shrub 1.0 m.

(a) **'Orange Sherbet'** cl. (Evergreen azalea: 'Linda Jean' × 'Hexe') **H** (1975), G (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double (13-lobed, all stamens petaloid), open funnel-shaped, 30 × 45 mm, vivid red (44A). Calyx 3 mm long, green. Lvs ± elliptic, 20-30 × 10-17 mm, ± moderate olive green (146A), hairy. Shrub 0.2 × 0.4 m in 6 yrs. Greenwood Hybrid.

'Pacific Gold' cl. ('Mrs Lammot Copeland' × unnamed late, deep yellow) **H**: H. L. Larson, 1969 **G** (1975), **N** & **I** (1982): J. A. Davis **REG**: 1986. Fls 8-12/truss, open funnel-shaped, 50 × 75 mm, with 5 wavy lobes, vivid reddish orange (34B) in bud, opening brilliant yellow (12B) with 7 mm edging of pale yellow (12D). Lvs elliptic, 95-100 × 45-50 mm, mahogany green when young, glabrous. Shrub 1.2 × 0.8 m in 12 yrs. Mid May.

(a) **'Pacific Twilight'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) × 'Temperance') **H**, **G** (1965), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 1-2/truss, funnel-shaped, 75 × 50 mm, vivid purplish red (74B), with a deep purplish red (61A) flush on dorsal lobes. Lvs elliptic, 40 × 15 mm. Shrub 1.0 m. Indian.

(a) **'Paddy Nick'** cl. (Evergreen azalea: parentage unknown) **H**, **G** (1976), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 40 × 65 mm, light purplish pink (55C), with a green flush on one lobe. Lvs elliptic, 25 × 15 mm. Shrub 0.6 m. Indian.

'Painted Skies' cl. ('Sunup-Sundown' × 'Lem's Cameo') **H** (1979), **G** (1983) & **N**: J. G. Lofthouse **REG**: 1986. Fls 11-12/truss, open funnel-shaped, 40 × 65 mm, with 6 wavy lobes, light yellowish pink (38D), darkening to strong pink (52D) towards lobe edges, flushed yellow-orange on dorsal lobes and with 2 orange rays; outside strong to deep pink (52C-D). Calyx 40mm long, coloured as corolla. Lvs narrowly elliptic to elliptic, 75-100 × 25-40 mm, dark, glossy green, glabrous. Shrub 0.6 × 0.4 m in 6 yrs. Late April.

(a) **'Pamela Malland'** cl. (Evergreen azalea: 'Vuyk's Rosyred' × 'Moonbeam') **H** (1972), **G** (1979), **N** & **I** (1982): G. Griswold **REG**: 1986. Fls solitary, broadly funnel-shaped (very flat-faced), 25 × 75 mm, with 5-6 wavy lobes (with deep sinuses, sometimes cut to base and

often with a petaloid stamen), deep purplish pink (55A), pale purplish pink (55C) in throat, minor strong red (53C) spotting on dorsal lobes. Calyx very small, light yellow-green (144D). Lvs narrowly obovate to nearly elliptic, 30-40 × 17-20 mm, dark yellowish green (139A), ciliate, strigose below. Shrub 0.3 × 0.4 m in 10 yrs. Mid May. Syn. 'Rosy Cheeks'.

'Papaya Punch' cl. ('Hotei' × 'Tropicana') **H**: E. C. Brockenbrough, 1971 **G** (1976) & **N**: G. H. Kesterson **REG**: 1986. Fls 13-15/truss, open funnel-shaped, 50 × 90 mm, with 5-6 wavy lobes, deep yellowish pink (47C) in bud, opening light yellowish pink (19B) with a 13 mm edge of pale orange-yellow (19D) and broad, brilliant yellow rays on all lobes (darker on dorsal lobes), vivid red (44A) spotting on rays (dense in throat, sparse at edges); as corolla ages it changes to brilliant yellow (13C), the rays to a brighter yellow and the spotting diminishes. Calyx 30 mm long, pale yellow (20D), with vivid reddish orange (32A) spots and rays. Lvs between narrowly oblong and oblong to between elliptic and narrowly elliptic, 95-125 × 40-50 mm, moderate olive green (137B), glabrous. Shrub 1.2 × 1.5 m in 14 yrs. Late April.

'Pardlestone' cl. (Probably (*yakushimanum* × *decorum*) × 'Goldsworth Orange') **H** (1972/3) & **G**: Knap Hill Nursery Ltd **N** & **REG** (1985): G. D. Waterer. Fls very pale lemon.

'Party Package' cl. ('Lem's Cameo' × 'Ruby Bowman') **H** (1976), **G** (1981), **N** & **I**: (1983) J. G. Lofthouse **REG**: 1986. Fls *c.* 15/truss, broadly funnel-shaped, 25 × 75-100 mm, with 7 wavy lobes, vivid red (52A) in bud, fading on opening through deep pink (52B-C) to strong pink (52D), with two 25 mm-long rays of vivid red (52A) spots on dorsal lobe and a star-shaped 52A stain deep in throat, outside slightly darker. Calyx irregular, 7-20 mm long, coloured as corolla. Lvs elliptic, 125-150 × 50-75 mm, bronze when young, with maroon petioles, glabrous. Shrub 1.2 × 1.1 m in 8 yrs. Early May.

(a) **'Pettychaps'** cl. (Evergreen azalea: parentage and origin unknown) **N**: E. W. Reuthe **I** (1963) & **REG** (1985): G. Reuthe Ltd. Fls hose-in-hose, 3-6/truss, 25-35 × 30-45 mm, 5-lobed, broadly funnel-shaped, light to deep purplish pink (55A-B-C), with darker spots on dorsal lobe. Lvs elliptic, 30-40 × 10-15 mm, light green. Shrub *c.* 0.4 m. Kurume.* **H.C.** 1983.

(a) **'Piewacket'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) hybrid) **H**, **G** (1974), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 2-3/truss, funnel-shaped, 30 × 90 mm, moderate yellowish pink (39C), with green flush on dorsal lobe and tips fading to white. Lvs elliptic, 25 × 10 mm. Shrub 1.0 m. Indian.

'Pines' cl. (Selection from Scarlet King g.) **H** (pre-1950) & **G**: E. F. Stead **REG**: G. F. Smith 1986. Fls 13-15/truss, tubular-campanulate, 50 × 40 mm, 5-lobed, turkey red (HCC 721/2), with darker spotting in throat and on dorsal lobe; pedicels red, glandular. Calyx 2 mm long, red. Lvs elliptic-lanceolate, 130 × 25 mm, with thin, silvery grey indumentum. September-October (New Zealand).

(a) **'Popcorn'** Syn. of 'Greenwood Popcorn'.

(a) **'Primitive Beauty'** cl. (Evergreen azalea: parentage unknown) **H** (1970) & **I** (1982): T. Dodd III Nursery **G** (1975) & **N**: F. C. Galle **REG**: 1986. Fls 3-5/truss, 50 mm wide, 5-lobed, the lobes cut to base and 50 × 13 mm, white. Calyx 20 mm long, green. Lvs ± narrowly elliptic, *c.* 50-65 × 20-22 mm, strong yellow-green (144A) above, ciliate and hairy. Shrub 1.5 × 1.5 m in 10 yrs. Early April. Southern Indian.

'Purple Gown' cl. ('Midnight' × 'Coronation Day') **H**, **G** (1955), **N** & **I**: K. van de Ven **REG**: 1986. Fls 15/truss, funnel-shaped, 50 × 110 mm, vivid purplish red (61C), dorsal blotch of deep purplish red (61A). Lvs elliptic 150 × 50 mm. Shrub 1.0 m.

(a) **'Rainier Red'** cl. (Evergreen azalea: 'Exquisite' × 'Crimson Glory') **H**, **G** (1985), **N** & **I**: B. Smith **REG**: 1986. Fls single, 1-2/truss, funnel-shaped, 50 × 60 mm, deep yellowish pink (46D). Lvs elliptic, 30 × 20 mm. Shrub 0.3 m.

'Ralph Pape' cl. ('Sunset Yates' × 'Pink Punch') **H**: H. T. Yates, 1968 **G** (1978), **N** & **I** (1982): M. Yates **REG**: 1986. Fls 13-17/truss, broadly funnel-campanulate, 40 × 75 mm, with 5 wavy lobes, strong purplish red (60B), throat strong purplish red (63B) and with small, faint, dark greenish yellow (152C) spots on dorsal lobe. Calyx minute, green. Lvs elliptic to ± narrowly elliptic, 80-115 × 40-45 mm, with plastered, golden indumentum below. Shrub 1.2 × 1.9 m in 16 yrs. Late May.

(v) **'Ravalac'** cl. (*zoelleri* × *konori*) **H**: P. Sullivan, 1971 **G** (1976), **N** & **I** (1977): W. A. Moynier **REG**: 1986. Fls 6-8/domed truss, tubular funnel-shaped, 70 × 95 mm, with 5-7 wavy lobes, strong pink (49A), shading gradually to cream yellow throat. Lvs elliptic, 140 × 60 mm, dull, moderate olive green (147A) above, moderate yellow-green (146B), with tiny, closely spaced, brown scales below. Shrub 1.4 × 1.2 m in 14 yrs. November-March.

'Red Rosella' cl. ('Red Admiral' × 'Cornubia') **H** (1962), **G** (1977), **N** & **I**: J. F. Wilson **REG**: 1986. Fls 12-15/truss, campanulate, with frilled lobes, 40 × 80 mm, strong red (53B), with black spots on dorsal lobes, fading to paler colour along midrib. Calyx 10 mm long, coloured as corolla. Lvs elliptic, 110 × 50 mm. Shrub 2.0 m.

(a) **'Robin Cook'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (c 1983): W. L. Guttormsen **REG**: 1985. Fls 1-3/truss, double and hose-in-hose (5 + 5-lobed, plus most stamens petaloid), funnel-shaped, 40 × 50 mm, strong purplish red (63B). Calyx 40 mm long, coloured as corolla. Lvs obovate to ± narrowly obovate, 25-40 × 14-20 mm, ± moderate olive green (146A), hairy. Shrub 0.2 × 0.5m in 6 yrs. Greenwood Hybrid.

(a) **'Rose Parade'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **H** (1975), **G** (1979), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 2-4/truss, double and hose-in-hose (5 + 5-lobed, plus petaloid stamens), broadly funnel-shaped, 40 × 65 mm, deep purplish pink (55A). Lvs ± narrowly obovate, ± moderate olive green (146A), glossy, hairy. Shrub 0.5 × 0.5 m in 6 yrs. Greenwood Hybrid.

(a) **'Rose Queen'** Syn. of 'Greenwood Rose Queen'.

(a) **'Rosy Cheeks'** Syn. of 'Pamela Malland'.

'Rosy Dream' cl. (*yakushimanum* × 'Britannia') **H**: H. L. Larson **G** (1975), **N** & **I** (1980): J. A. Davis **REG**: 1986. Fls 12-16/truss, open funnel-shaped, 50 × 65 mm, with 5 wavy lobes, strong red in bud (53B), opening deep purplish pink (54B), throat moderate purplish pink (54D), with minor, red, dorsal spotting; colour fades with age. Calyx very small, light green. Lvs between narrowly elliptic and elliptic, 140 × 50 mm, with a silvery indumentum which ages to cinnamon. Shrub 0.6 × 1.1 m in 12 yrs. Early-mid May.

(a) **'Royal Crown'** cl. (Evergreen azalea: 'Violaceum' × 'Katie') **H** (1967), **G** (1970), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, semi-double and hose-in-hose (5 + 5-lobed, plus some petaloid stamens), broadly funnel-shaped, 50 × 90 mm, strong purplish red (72A), throat black, considerable spotting on dorsal lobes. Calyx 45 mm long, coloured as corolla. Lvs elliptic, 25-40 × 13-20 mm, ± moderate olive green, glossy, hairy. Shrub 0.25 × 0.5 m in 12 yrs. Greenwood Hybrid.

(a) **'Royal Show'** cl. (Evergreen azalea: parentage unknown) **H**, **G** (1975), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 1-2/truss, funnel-shaped, 40 × 75 mm, moderate yellowish pink (38B). Lvs elliptic, 30 × 15 mm. Shrub 1.0 m. Indian.

(a) **'Rusty Keller'** cl. (Deciduous azalea: 'Orangeade' × *austrinum*) **H** (1966), **G** (1976) & **N**: G. & T. Elmer **REG**: 1986. Fls 10-12/truss, broadly funnel-shaped, 70 × 65 mm, with 5 wavy lobes, strong reddish orange (32B), with strong orange blotch (25A); flat-faced, with recurved lobes. Calyx 7 mm long, green. Lvs oblanceolate, 90-108 × 30-40 mm, hairy. Shrub 1.9 × 1.0 m in 15 yrs. Mid-late April (southern USA). Chinquapin Hill.

(a) **'Ruth Ticknor'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, semi-double and hose-in-hose (5 + 5-lobed, plus mostly petaloid stamens), open funnel-shaped, 25 × 45 mm, deep pink (52B), throat light red, some dorsal spotting. Calyx 30 mm long, coloured as corolla. Lvs ± elliptic to ± narrowly obovate, 28-45 × 13-25 mm, moderate olive green (146A-147A), glossy, hairy. Shrub *c.* 0.4 × 0.6 m in 6 yrs. Greenwood Hybrid.

'Samoa' cl. ((*catawbiense* (white) × *yakushimanum*) × ('Fanfare' × 'Gertrud Schäle')) **H** (1962), **G** (1968) & **N**: D. G. Leach **REG**: 1985. Fls 14-15/truss, 50 × 53 mm, 5-lobed, vivid red (46C), but redder and brighter), lighter in centre, with faint dorsal spotting of 46C. Calyx 1 mm long, light greenish tan. Lvs elliptic, 88 × 40 mm, rough above, with minute white hairs.

'Sam Vaccaro' cl. ('Roseum Elegans' × 'Roslyn') **H** (1964), **G** (1974) & **N**: W. M. Fetterhoff **REG**: 1986. Fls 12-15/truss, broadly funnel-shaped, 30 × 65 mm, 5-lobed, bluish white (near 91D at edges) which quickly fades to white, with a moderate purplish red (64A) blotch (13-20 mm long) on dorsal lobe. Calyx very small, white. Lvs near elliptic to broadly elliptic, 55-130 × 35-60 mm, moderate olive green (146A) above, with a short, patchy colourless indumentum below. Shrub 1.1 × 1.4 m in 21 years. Late May.

(a) **'Sara Copeland'** cl. (Deciduous azalea: wild selection from *canescens*) **S** (1983) & **N**: V. Copeland **REG**: 1986. Fls 7-9/truss, narrow tubular funnel-shaped, 30 × 30 mm, 5-lobed, white, outside of tube pink; filaments united to form a white funnel-shaped tissue, to which up to 20 anthers are laterally attached, sometimes a few ± normal stamens present. Calyx 3 mm long, light green. Lvs between ± narrowly elliptic and elliptic, 45-55 × 17-22 mm, strong yellow-green (143A), ciliate, hairy. Shrub 1.5 × 1.2 m in 6 yrs. Late March-early April.

'Savanna' cl. (('Calcutta' × 'Catalgla') × 'Casanova') **H** (1976), **G** (1983) & **N**: D. G. Leach **REG**: 1985. Fls 18-20/truss, 37 × 45 mm, 5-lobed, pale yellow (8D), deepening to light greenish yellow (8B) in centre and on dorsal lobe, with brilliant greenish yellow (1B) dorsal spotting; buds moderate yellowish pink (38B), flushed light yellowish pink on dorsal exterior. Calyx minute, green. Lvs elliptic, 108 × 42 mm, petioles and buds of current growth covered in reddish brown tomentum.

'Senegal' cl. (*keiskei* × *minus* Carolinianum Group (white)) **H** (1974), **G** (1978) & **N**: D. G. Leach **REG**: 1985. Fls 7-8/truss, 25 × 40 mm, 5-lobed, pale greenish yellow (2D), faintly flushed pale orange on opening, soon ageing uniform yellow, finally ivory. Calyx 1 mm long, pale green. Lvs narrowly elliptic, 60 × 25 mm, glabrous. Semi-dwarf shrub.

(a) **'Showboat'** Syn. of 'Greenwood Showboat'

'Sierra Stars cl. ('Sunup-Sundown' × 'One Thousand Butterflies') **H** (1979), **G** (1984) & **N**: J. G. Lofthouse **REG**: 1986. Fls 11-13/truss, open funnel-shaped, 65-90 mm wide, with 5 wavy lobes, vivid red in bud (46C), opening pale purplish pink (56D), with 7 mm wide edging of vivid red (46C), light gold area of spotting (40 × 20 mm) on dorsal lobe and with vivid red (46C) lines down centre of each lobe into base of throat which is deep pink (52C); outside 46C. Calyx ± same length as corolla, 46C. Lvs between oblanceolate and narrowly obovate, 100-145 × 45-55 mm, dark, glossy green above, with a light, patchy, light orange-brown indumentum below. Shrub 0.6 × 0.6 m in 6 yrs. Late April.

'Sierra Sunset' cl. ('Sunup-Sundown' × 'Lem's Cameo') **H** (1979), **G** (1983) & **N**: J. G. Lofthouse **REG**: 1986. Fls 10-12/truss, open funnel-shaped, 40 × 65-75 mm, with 6 wavy lobes, strong salmon in bud, opening deep pink (52B) at edges, shading to light yellowish pink (37D) in lobe centres and in throat, with 2 light rays on dorsal lobe of light orange-yellow (24C); outside edged and striped vivid red (52A), external stripes shaded through 52B-C-D toward base, areas between stripes moderate yellowish pink (38B), light yellowish pink at base (37D). Calyx 20-30 mm long, leafy, somewhat reflexed, coloured as corolla. Lvs narrowly elliptic, 75-100 × 25-40 mm, with a very light, tan indumentum below. Shrub 0.6 × 0.4 m in 5 yrs. Mid April.

'Silver Trumpets' cl. ('Sunup-Sundown' × unnamed Whitney hybrid) **H** (1979), **G** (1983) & **N**: J. G. Lofthouse **REG**: 1986. Fls 7-10/truss, trumpet-shaped, 75 × 65 mm, 5-lobed, plum-red in bud, opening plum, soon fading to white, with moderate red (179A) blotches deep in throat at base of each lobe and heavy peripheral spotting of moderate red (179A) on dorsal lobes, outside shaded plum, especially along tube. Calyx lobes leafy, irregular, strongly reflexed, 45 mm long, coloured as corolla. Lvs variable, ± oblanceolate, 100-125 × 35-45 mm, with light, brownish indumentum. Shrub 0.5 × 0.4 m in 5 yrs. Early May.

(a) **'Sizzler'** cl. (Deciduous azalea: selection from *bakeri*) Collected by O. Holmsomback, 1968 **G** (c1980) & **N**: M. L. B. Hill **REG**: 1986. Fls 5-6/truss, narrowly tubular funnel-shaped, 40 × 50 mm, with 5(-6) wavy lobes, vivid reddish orange (40A) and strong reddish orange (42B), with an insignificant dorsal blotch. Calyx 7 mm long, pale green, hairy. Lvs very dark green, elliptic to narrowly and broadly elliptic, 50 × 25 mm, bullate, ciliate, hairy. Shrub 1.2 × 1.5 m in 16 yrs. Late June-early July.

(a) **'Snow Cloud'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 2-3/truss, semi-double and hose-in-hose (5 + 5-lobed, plus petaloid stamens), funnel-shaped, 30 × 65 mm, white, with pale yellow throat. Calyx 25 mm long, coloured as corolla. Lvs ± narrowly obovate, 30-35 × 20 mm, ± strong yellow-green (144A), hairy. Shrub 0.3 × 0.4 m in 6 yrs. Greenwood Hybrid.

(a) **'Snow Mound'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, hose-in-hose (5 + 5-lobed), open funnel-shaped, 40 × 45 mm, white, with green throat and spotting on dorsal lobes. Calyx 40 mm long, coloured as corolla.Lvs elliptic, 20-25 × 10-13 mm, ± moderate olive green (146A), hairy. Shrub 0.35 × 0.65 m in 6 yrs. Greenwood Hybrid.

(a) **'Snow Puff'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N & I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, hose-in-hose (5 + 5-lobed), funnel-shaped, 40 × 50 mm, white, with pale yellow throat and dorsal lobe spotting. Calyx 30 mm long, coloured as corolla. Lvs ± narrowly obovate to ± elliptic, 28-45 × 17-22 mm, ± moderate olive green (147A), very glossy, hairy. Shrub 0.3 × 0.5 m in 6 yrs. Greenwood Hybrid.

'Soldier Sam' cl. ('Dido' × *dichroanthum*) **R**: W. S. Reuthe **S**: I. Stanger **N** (1985), **I** (1977) & **REG** (1985): G. Reuthe Ltd. Fls 12/truss, 50 × 60 mm, 5-lobed, pale yellow (18C) inside, strong pink (49A) outside. Calyx 30 mm long, strong pink (48D) and pale yellow

(20D). Lvs elliptic, 115-120 × 45-50 mm, glabrous.

(a) **'Spider Light'** cl. (Evergreen azalea: 'Comtesse de Kerchove' (Indian) × 'Apollo') **H, G** (1977), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double, 1-2/truss, funnel-shaped, 30 × 50 mm, vivid red (46B). Lvs elliptic, 40 × 13 mm. Shrub 1.0 m. Indian.

(a) **'Spring Spangle'** cl. (Deciduous azalea: *vaseyi* × *vaseyi* 'Spring Party') F_2**H** (1968), **G** & **N** : D. G. Leach **REG**: 1985. Fls 6-8/truss, 23 × 45 mm, 5-lobed, deep purplish pink (73A), spotted strong purplish red (61B) on dorsal lobes. Calyx minute, dark green. Pedicels red. Lvs narrowly elliptic, 94 × 25 mm, glabrous.

(a) **'Star Bright'** cl. (Evergreen azalea: parentage unknown) **H, G** (1975), **N** & **I**: I. C. Nichols **REG**: 1986. Fls double (3 layers of star-like lobes), 2-3/truss, funnel-shaped, 33 × 70 mm, white, with green flush on one lobe; no stamens. Lvs elliptic, 50 × 20 mm. Shrub 1.0 m. Indian.

'Sugar Frosting' cl. (('Catalgla' × *fortunei*) × *decorum* ('McLaren form')) **H** : G. Ring, 1972 **G** (1979), **N** & **REG** (1985): A. R. Brooks. Fls 10-14/truss, 40 × 60-70 mm, open funnel-shaped, with 7 very wavy lobes, white. Lvs oblong, 100-120 × 45-55 mm, glabrous. Shrub 1.5 × 2.4 m in 12 yrs, with extremely fragrant fls. Mid May.

(a) **'Summer Evening'** cl. (Deciduous azalea: 'Sang de Gentbrugge' × *austrinum*) **R** & **N**: G. A. Hardy **REG**: 1985. Fls flame red, with an orange eye.

'Summer Glow' cl. ('Summer Snow' × 'Scarlet Blast') **H** (1971), **G** (1977) & **N**: D. G. Leach **REG**: 1985. Fls 13/truss, 60 × 75 mm, 5-lobed, vivid purplish red (57C), shading to pale purplish pink (62D) in centre, with light orange-yellow (23C) dorsal spotting; outside vivid red (57A). Calyx 2 mm long, pink. Pedicels dark red. Lvs narrowly elliptic, 160 × 57 mm.

'Summer Solace' cl. ('Summer Snow' × 'Catalgla') **H** (1968), **G** (1976) & **N**: D. G. Leach **REG**: 1985. Fls 16-20/truss, 75 × 75 mm, white, with bold yellow-green dorsal spotting. Calyx 2 mm long, yellow. Lvs narrowly elliptic, 140-200 × 50 mm, bright, glossy green, glabrous.

'Sunrise Serenade' cl. ('Hotei' × 'Lem's Cameo') **H** (1976) & **REG** (1986): J. G. Lofthouse **G** (1982) & **N**: Mr & Mrs R. V. Mann. Fls 14-18/domed truss, open funnel-shaped, 40 × 75 mm, with 7 wavy lobes, light yellowish pink (36A) in bud, opening pale yellowish pink (27C), with 10 mm edge flushed light yellowish pink (38D) - fades as fl ages - with light gold dorsal spotting; outside of lobes 38D. Calyx irregular, 30-40 mm long, pale yellowish pink (27C), light yellowish pink (27B) in bud. Lvs between elliptic and narrowly elliptic, 100-125 × 40-50 mm, dark, ± glossy green, glabrous. Shrub 1.6 × 1.3 m in 9 yrs. Early-mid May.

(a) **'Susie Cook'** cl. (Evergreen azalea: 'Boudoir' × 'Rose Greeley') **H** (1969), **G** (1975) & **N**: W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, single, 5-lobed, open funnel-shaped, 40 × 75 mm, strong purplish pink (67D). Calyx 13 mm long, green. Lvs ± narrowly obovate, 30-50 × 14-22 mm, ± moderate olive green (147B), hairy. Shrub 0.6 × 1.0 m in 10 yrs. Syn. 'Susie'. Greenwood Hybrid.

'Thatcher's Red' cl. (Parentage unknown) **N** & **REG** (1986): Mrs V. F. Thatcher. Fls 50 mm wide, tubular funnel-shaped, vivid red (45C), with darker spots. Calyx prominent, red. Lvs oblong, 50 × 20 mm, with thick brownish orange indumentum (164A). Compact shrub up to 0.75 m. October-November (New Zealand).

(a) **'Thérèse Elmer'** cl. (Deciduous azalea: 'Orangeade' × *austrinum*) **H** (1966), **G** (1977) & **N**: G. & T. Elmer **REG**: 1986. Fls 15/truss, broadly funnel-shaped (flat-faced), 65 × 65mm, with 6-7 wavy lobes, light yellow (18A) and vivid reddish orange (30B), with a brilliant orange-yellow (23B) blotch covering most of dorsal lobe. Calyx minute, greenish. Lvs oblanceolate, 75-90 × 25 mm, hairy. Mid-late April (southern USA). Chinquapin Hill.

(a) **'Totally Awesome'** cl. (Deciduous azalea: two unnamed seedlings) **H** (1976), **G** (1979) & **N**: J. O. Bunnell **REG**: 1986. Fls 7/truss, open funnel-shaped, 65 × 100 mm, with 5-8 wavy lobes, vivid reddish orange (42A) in bud, opening strong reddish orange (40C) at edges, with blotch of vivid yellow spots (15A) on dorsal lobe, outside strong red (41B), shaded near brilliant yellow (14C) and light yellow (15D). Stamens 0-7, some extra irregular petals often present. Calyx 7 mm long, strong yellow-green (144A). Lvs very narrowly elliptic, 70-80 × 17-25 mm, hairy. Shrub 1.1 × 1.2 m in 7 yrs. Mid May.

(a) **'Tsuneshige Rokujo'** cl. (Deciduous azalea: *serrulatum* × *prunifolium*) **H** & **G** (pre-1972): H. T. Skinner **N** & **REG** (1986): Mrs. M. L. B. Hill. Fls in a terminal cluster of 1-4, 6-flowered trusses, narrow tubular funnel-shaped, 37 × 37 mm, 5-lobed, buds deep purplish pink (55A) with glandular hairy, pale purplish pink (55D) ribs, opening strong

purplish pink (55B) - some light to pale purplish pink (55C & D) - throat 55D; stripes (55D to white) down centre of each lobe. Calyx 2 mm long, pale green. Lvs near elliptic to narrowly obovate, 45-65 × 22-30 mm, moderate olive green (147B), somewhat bullate, ciliate, but otherwise glabrous. Shrub 1.5 × 1.5 m in 13 yrs. Late August.

'Tupare' cl. (*nuttallii* × *lindleyi*) **H**: E. F. Stead, pre-1950 **G** & **N**: Sir Russell Matthews, pre-1976 **REG**: G. F. Smith, 1986. Fls 4-6/truss, tubular campanulate (with deep indentations at base of corolla tube), 100 × 120 mm, 5-lobed, buds creamy pink, opening white, with a deep yellow basal blotch and small brown scales on outside of dorsal lobe; strongly and sweetly scented. Calyx 30 mm long, green, edged pink. Lvs elliptic, 180-200 × 70-80 mm, with small brown scales over a grey green surface. Shrub up to 3.0 m, with purple-green new growth and peeling mahogany bark. Late October-November (New Zealand).

'Vee Vee' cl. (('Moon Mist' × 'Tahiti') × (*maximum* × 'Fabia')) **H** (1972), **G** (1978) & **N**: D. G. Leach **REG**: 1985. Fls 20-24/truss, 40 × 60 mm, 5-lobed, pale yellow-green (4D), with broad perimeter band of light purplish pink (62C) and bold dorsal blotch of brilliant yellow (7A), outside moderate purplish pink (62B). Calyx 2 mm long, green. Lvs narrowly elliptic, 140 × 50 mm, surfaces rough. Vegetative and floral buds awned.

(a) **'Vera Cook'** cl. (Evergreen azalea: 'Linda Jean' × 'Springtime' (Kurume)) **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, double (13-lobed, with mostly petaloid stamens), tubular funnel-shaped, 30 × 45 mm, deep purplish pink (54B), with red dorsal spotting. Lvs ± broadly elliptic, 30-40 × 22-25 mm, ± moderate olive green (146A), glossy, slightly bullate, hairy. Shrub 0.4 × 0.5 m in 6 yrs. Greenwood Hybrid.

'Vibrant Violet' cl. (*impeditum* × *augustinii*) **H** (1966), **G** (1972) & **N**: F. Fujioka **REG**: 1986. Fls in terminal clusters of 4-5, 5-6-flowered trusses, broadly funnel-shaped, 25 × 50 mm, with 5 wavy lobes, vivid violet (88A). Calyx *c.* 1.5 mm long, strong yellow-green (144C). Lvs ± elliptic or broader than lanceolate, 30-45 × 17-20 mm, dark yellowish green (139A), with moderately spaced, small, golden brown to yellow scales above and below. Shrub 1.9 × 1.9 m in 19 yrs. Late March.

'Viennese Waltz' cl. ('Lem's Cameo' × 'Pink Petticoats') **H** (1976), **G** (1980) & **N**: J. G. Lofthouse **REG**: 1986. Fls up to 34/truss, funnel-shaped, 50 × 50-75 mm, 6-7-lobed, strong red (51A) in bud, opening moderate pink (51D) at lobe edges, shading to pale purplish pink (55D) in throat, with orange-brown spotting on dorsal lobe on a ground of light yellowish pink (27B), outside deep pink (51B). Calyx very small. Lvs elliptic, 108-140 × 50-70 mm, glabrous. Shrub 1.2 × 1.0 m in 8 yrs. Early May.

'Vineland Fragrance' cl. ('Scandinavia' × 'Catalgla' × *fortunei*)) **H** : R. Forester, 1960 **G**: Horticultural Institute of Ontario (Vineland Station), 1966 **N** & **REG** (1986): R. Behring. Fls 12/truss, open funnel-shaped, 40 × 8 mm, (5-)6(-7)-lobed, light purplish pink (73C), throat strong purplish pink (73B), 20 mm edge of very pale purple (73D); 4 rays of moderate reddish orange (178D) in dorsal throat, strong greenish yellow (151A) spotting on dorsal lobe; outside with deep purplish pink (73A) ribs and lines; outside of lobes lighter pink than inside; very fragrant. Calyx 2 mm long, strong yellow-green (145A). Lvs narrowly elliptic, 120 × 40 mm, moderate olive green (147A), glossy, glabrous. Shrub 1.6 × 1.2 m in 10 yrs. Mid May.

'Wedding Gown' cl. (*veitchianum* × *burmanicum*) **H**, **G** (1982), **N** & **I**: K. van de Ven **REG**: 1986. Fls 5-7/truss, funnel-shaped, 70 × 100 mm, yellowish white (155D), slightly yellow in throat and on dorsal lobe. Lvs obovate, 60 × 25 mm. Shrub 1.5 m.

(a) **'White Ermine'** cl. (Evergreen azalea: 'Linda Jean' × 'Satanta') **H** (1975), **G** (1979), **N** & **I** (*c.* 1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, single, broadly funnel-shaped, 5-lobed, 30 × 45 mm, white, with yellow-green throat and spotting on dorsal lobe. Calyx 7 mm wide, green. Lvs ± narrowly obovate, 30 × 13 mm, glossy, hairy. Shrub 0.3 × 0.3 m in 6 yrs. Greenwood Hybrid.

(a) **'White Flakes'** cl. (Deciduous azalea: wild selection from *canescens*) **S** (1969) & **N**: F. C. Galle **REG:** 1986. Fls double, 3-5/truss, tubular funnel-shaped, 25 × 35 mm, *c.* 30-lobed, light pink in bud, opening white, with pale to light pink tip to each lobe; no stamens or pistil. Calyx 3 mm long, light green. Lvs between oblanceolate and narrowly obovate to narrower than oblanceolate, moderate yellowish green (138A), ciliate, hairy. Shrub 1.5 × 1.2 m in 10 yrs. Early April.

(a) **'Winter Hawk'** cl. (Evergreen azalea: 'Linda Jean' × 'Hahn's Red') **H** (1975), **G** (1979), **N** & **I** (c1983): W. L. Guttormsen **REG**: 1985. Fls 1-2/truss, hose-in-hose (5 + 5-lobed),

open funnel-shaped, 40 × 50 mm, white, with pale yellow throat; lobes crinkled. Calyx 30 mm long, coloured as corolla. Lvs elliptic to broadly elliptic, 22-40 × 17-25 mm, ± moderate olive green (146A), glossy, hairy. Shrub 0.4 × 0.5 m in 6 yrs. Greenwood Hybrid.

(a) **'Yukon'** Syn. of 'Greenwood Yukon'

Corrections to the Register

'Tinicum' In the list of additions for 1983-84 (*Rhododendrons 1984-5*, p. 98) this cultivar was incorrectly listed as an azalea.

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BROOKS, A. R., 255 Holden Wood Road, Concord, Massachusetts 01742, USA
BUNNELL, J. O., 5411 Cedar Flats Road, SW, Olympia, Washington 98502, USA
COPELAND, V., Rt. 2, Box 408, Bronwood, Georgia 31726, USA
DAVIS, J. A., 1323-132nd Avenue East, Sumner, Washington, 98390, USA
DOSSER, D. J., George Street, Warburton East, Victoria, Australia
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DUNCAN & DAVIES LTD, New Plymouth, Taranaki, New Zealand
ELLIOTT, J. A., Rt. 4, Box 544, Astoria, Oregon 97103, USA
ELMER JR, G. & T., Chinquapin Hill, Rt. 1, Box 52, Pass Christian, Mississippi 39571, USA
FAULL, J., Monash Avenue, Olinda, Victoria, Australia
FETTERHOFF, W. M., 5279 Richland Road, Gibsonia, Pennsylvania 15044, USA
FISHER, J. R., PO Box 45, Cust, New Zealand
FORREST, MISS M., Head Gardener, Glenveagh National Park, Letterkenny, Co. Donegal, Ireland
FUJIOKA, F., 10309-66th Pl.W, Everett, Washington 98204, USA
GALLE, F. C., Box 252, Hamilton, Georgia 31811, USA
GOHEEN, D., PO Box 826, Camas, Washington 98607, USA
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GRISWOLD, G., Griswold Nursery, 12643 NE 70th Pl., Kirkland, Washington 98033, USA
GUTTORMSEN, W. L., Greenwood Gardens, Canby, Oregon 97013, USA
HALL, M. E., 135 Norlen Park, Bridgewater, Massachusetts 02324, USA (deceased)
HARDY, G. A., Hillhurst Farm, Hythe, Kent, CT21 3HU, England
HILL, MRS, M. L.B., 1106 Greenhill Avenue, Wilmington, Delaware 19805, USA
HILLBERG, F. J., 37 Wiltshire Avenue, North Yate, Avon, England
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Last word

Members responded to my requests of articles with an enthusiasm that has resulted in slightly more copy than we are able to *squeeze* into the available space - the first time for several years! Please continue with your efforts. However the same cannot be said for the anticipated deluge that I had hoped might result in reintroducing **Rhododendron, camellia and magnolia notes** - as you can see just *two* individuals bothered to write; please do not let this informative and respected legend die.

This edition of the year book has attempted to be truly international. Vireya rhododendrons have enjoyed increasing popularity during recent years, not least in Australia, and I hope that the authoritative article by Elizabeth Williams and John Rouse, and the accompanying twelve colour plates, will long remain a valued account of this Section.

Scotland has had its fair share of coverage with articles concerning RBG Edinburgh, Barnhourie and many more in the account of the Tour. Cornwall too has made its presence felt from our regular and knowledgeable colleagues Walter Magor and Christian Lamb, and Trelean Valley Garden has joined the ranks of Cornish gardens to be included in the year books. This gives me the opportunity to announce the Cornwall Gardens Festival in 1987, when the Cornwall Garden Society's Spring Show moves from Truro to Trelissick (25 and 26 April), and about fifty Cornish gardens participate in a schedule of open days to the public from 19 April to 4 May. An extended gardening date for your new diaries! Further information is available from the Cornwall Tourist Board, Dept GF, Old County Hall, Station Road, Truro, TR1 1BR.

The short appraisal of *Rhododendron aperantum* satisfies my wishes (this year!) to include informative details of some of the lesser known species and/or hybrids which have not had their 'portraits painted' in previous year books. I truly hope this will be the first of a regular series.

For the regular contributions concerning the Shows we are much indebted to their authors. I am extremely grateful to them all, but must make particular reference to John McQuire; sadly this will be the last erudite account of the **Species Section** from his pen. Consequently, the Hon. Editor needs a replacement volunteer *now* - or sadly there can be no species show results.

I do hope you have enjoyed reading this issue, and I look forward to hearing from potential contributors during early spring next year.

J.S. - Bagshot, Surrey, September 1986

Index

of rhododendrons, magnolias and camellias
Names of newly registered rhododendrons (at pp. 90 to 109) are not included in this index
(a) and (az) as applied to Rhododendrons refer to azaleas and azaleodendrons respectively
An asterisk after an award indicates one given after trial at Wisley

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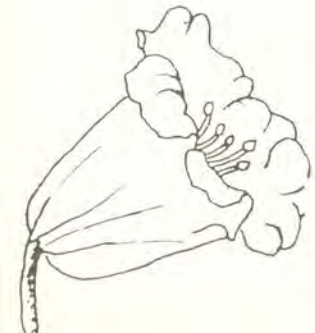

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