RHODODENDRONS 1975
with
MAGNOLIAS and CAMELLIAS

The Royal Horticultural Society
London

Acknowledgements

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RHS
Rhododendron, Camellia
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RHODODENDRONS 1975

with

Magnolias and Camellias

THE ROYAL HORTICULTURAL SOCIETY
VINCENT SQUARE
LONDON

SBN: 900629 75 4

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Printed in Great Britain

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FOREWORD

It gives me great pleasure to write a short foreword to 'Rhododendrons, 1975, with Magnolias and Camellias'. This year's annual, like the last, has been compiled for the Editor by Major Walter Magor, to whom we are grateful for gathering together so many interesting and varied articles. It is hard to single out any particular one – but the one on Rejuvenating a Woodland Garden in Cornwall should appeal to many who have been faced with a similar problem. Neither have magnolias and camellias been neglected; how they fared in Hampshire in Harold Hillier's garden provides food for thought.

Finally, a trio of requests, made in former years, but again repeated. Articles for future annuals will be greatly welcomed. More competitors in the Rhododendron and Camellia shows held in the Spring at the R.H.S. halls in Vincent Square would be welcomed too – there are classes for novices. And finally, if you are interested in these groups of plants, have you joined the R.H.S. Rhododendron & Camellia Group? Details of all the above can be obtained from the Secretary of the Royal Horticultural Society, Vincent Square, London, SW1P 2PE.

SIR GILES LODER, Bt.
Chairman,
Rhododendron & Camellia Committee.

The Rhododendron Collections of Ludlow and Sherriff

H. R. FLETCHER

At the end of May 1933 George Sherriff and Frank Ludlow crossed the Bhutan frontier on the first of their joint plant collecting expeditions in Bhutan and south-east Tibet. For the next three months they botanised in Bhutan, especially in the north-east of the country in the region of the Trashiyangsi valley and of the Me La[1], the appropriately named 'Pass of the flowers'. At the end of August they crossed the main Himalayan range into Tibet and by way of the Yamdrok Tso[2] journeyed to the famous town of Gyantse which stands halfway between the Indian frontier and Lhasa at an altitude of 13,260 ft. When they reached Gyantse in the third week of September their first expedition virtually was at an end. Of the 537 beautifully preserved plant specimens they gathered, including several species previously unknown to science, only 21 were of rhododendrons. Possibly the most interesting rhododendron was *R. camelliiflorum* which they collected twice: L & S 190 was a splendid form with deep wine-red fleshy flowers, whilst 253 had much paler pinkish-red flowers. These two gatherings illustrate an important point which Ludlow & Sherriff's collections were to emphasise time and time again, the immense variability of rhododendron species in the wild.

The great significance of this first expedition was not so much the number of the plants they collected, nor indeed the 750 valuable bird skins they prepared, but the fact that it spurred the two friends on to greater efforts. They decided on an organised plan of campaign for the future and planned a series of journeys during which they would work gradually eastwards through Tibet along the main Himalayan range; each succeeding journey would overlap, to some extent, its predecessor, until the great bend of the Tsangpo was reached. Thus proceeding methodically eastwards Ludlow & Sherriff hoped to obtain valuable information regarding the distribution of plants, to make collections of plants for herbaria, and to introduce to British gardens by means of seeds and living plants as many desirable plant species as possible.

Towards this end, in 1934 they botanised intensively in the basins of the Tawang Chu[3] and Nyam Tang Chu in Tibet and then revisited the Trashiyangsi valley in East Bhutan. Of the 600 plant specimens they prepared for the herbarium, many of which were new records for Bhutan or Tibet and thus threw new light on the distribution of previously known species whilst at least a dozen and a half were of plants quite new to botanical science, 31 were of rhododendrons. Once again these illustrated the variability of well known species. For instance, the

1. La – pass 2. Tso – lake 3. Chu – river

summit of the Nyuksang La (c. 14,000 ft) in south-west Bhutan, was rhododendron jungle with numerous forms of the immensely variable *R. lepidotum* (634) in hues of pink, crimson, purple, yellow, greenish-yellow and white, as well as many forms of *R. campanulatum* (605, 616, 619, 622, 624), some with white flowers tinged with pink, with or without a purple blotch, others with rose-pink flowers with or without dark crimson spots, and all showing variation in foliage. That these two rhododendrons should be so variable in the wild is not surprising in view of their wide geographical range, the former from the north-west Himalaya to south-west China, and the latter from Kashmir to Bhutan. And being so variable in the field no one should be surprised to find them equally as variable in cultivation. On this expedition one particular gathering of seeds of *R. anthopogon* (1091) proved to be a very lucky one. Many plants have been raised from these seeds, and one seedling grown by E. H. M. & P. A. Cox in Perthshire, and named 'Betty Graham' after Mrs Sherriff, received the Award of Merit in 1969.

In 1936, with Dr Kenneth Lumsden as their companion, Ludlow and Sherriff concentrated their efforts in that part of south-east Tibet which includes the districts of Chayul, Charme & Tsari – the upper reaches of the Subansiri river, the area which Kingdon Ward had visited the previous year. This expedition was one of the most outstanding of the 20th century, and from the point of view of new species of rhododendron was easily the most successful of the L & S expeditions. Though Kingdon Ward forestalled them in discovering one or two new taxa, 15 new species were represented in the 234 gatherings of some 70 species of rhododendron. During the rest of their journeys L & S discovered only 3 other new rhododendrons; in 1938 *R. trilectorum* (L. S. & Taylor 5582) a prostrate shrub only a foot tall with fleshy flowers of the palest yellow and named to commemorate the partnership on this expedition of Ludlow, Sherriff and Dr George Taylor, as well as a more or less prostrate form of *R. chaetomallum* known as *chamaephytum* (3786); and in 1947 the pink-flowered *R. pomense* (L. S. & Elliot 13177).

Ludlow and Sherriff were always thrilled to find new taxa and it was the discovery of so many new rhododendrons in 1936 which really stimulated their interest in this great genus, their knowledge of which at this time was not very great. This is very obvious from their diaries. On 26 April they camped on a grassy flat at Natrampa (10,000 ft) in the Chayul Valley and spent the following, and immensely profitable, day exploring the surrounding country. Sherriff wrote in his diary on the evening of the 27th: "We went along the Lung road to the first cascade about a mile downstream. There we found a most unusual red rhododendron, 1352 [*neriiflorum*][4], a beautiful mauve one 1354 [*cinnabarinum* var. *purpurellum*], an unusual yellow one 1353 [*triflorum*]. Also a small pink one 1355 [*glaucophyllum*]. Then we followed up the stream, which came down in a series of waterfalls, as far as we could. Here, above us, was an impassable cliff with two streams coming down fine falls, close together. This was an excellent place as we found numerous rhododendrons, some of which 1357 [*fulvum*] and 1358 [*arizelum*]

4. Any comments in square brackets are those of the writer of this article

were particularly fine. The latter has a most striking leaf covered with a thick bright rusty-red indumentum. I marked trees 1352, 1353, 1354, 1357 with tin labels". Few readers of *Rhododendrons* 1975 would describe *R. neriiflorum* and *R. triflorum* as "unusual". Both have been in cultivation for many years although the true *R. triflorum* appears to be none too common in gardens. Though not an unusual plant *R. neriiflorum* is certainly an interesting one from a geographical point of view in that it forges a link between the floras of western China and the Himalaya. So do *R. fulvum* and *R. arizelum*, as well as the low-growing, glistening yellow-flowered *R. megeratum* (1361) which was also gathered on the same day at Natrampa; all are found in Yunnan as well as in the Himalaya.

If *R. neriiflorum* was not very unusual, several other rhododendrons at Natrampa, all growing in the rhododendron and bamboo jungle at 11,500 feet, most certainly were; in fact they had never been collected before and they were described as new to science. L. & S. 1359, with deep crimson, magenta-blotched bells was named *R. populare* (ss. Thomsonii) and 1360 and 1365, both with flowers of a bright lemon-yellow, were named *R. dekatanum* (ss. Boothii) and *R. amandum* (ss. Ciliicalyx) respectively. Rather more exciting, and certainly rather more beautiful, were 1364 and 1354. The former which was appropriately called *R. tsariense*, was 3 or 4 feet tall, had fine 2-inch leaves heavily plastered on the lower surface with a cinnamon-brown indumentum and carried an abundance of small trusses of pale blush-pink flowers which in the bud were a rich carmine. In the middle of November seeds of *R. tsariense* were procured from the Nyingsang La under the number 2858 and from these seeds it was introduced into gardens in Britain. The seedlings have been rather variable in habit – some very dwarf, others up to 5 feet tall – as well as in flower colour, from white to pink. One seedling, under the name of *R. tsariense* 'Yum Yum' with exquisitely pink-flushed flowers, received the Award of Merit in 1964. In cultivation *R. tsariense* has proved to be one of the finest, perhaps the finest new rhododendron Ludlow and Sherriff introduced.

L. & S. 1354, which particularly impressed the collectors, was not a new species but a new colour form of the well known *R. cinnabarinum* and was named *purpurellum*; growing to a height of 12 feet, the slender branches were bending under the weight of the bright pinkish-mauve bells. This very distinct plant is now well established in cultivation and received the Award of Merit in 1951.

Some seven miles from Natrampa at the deserted village of Lung (9,200 ft) where the now well known *Paeonia lutea* var. *ludlowii* was very common, they discovered more rhododendrons as Sherriff recorded in his diary on April 29: "we found eight more rhododendrons some of which are particularly fine. The prettiest I thought were 1383 [*fulvum*] with a nicely spotted upper half of the blush-pink flower; a fine big cluster of pale pink flowers, each on a long pedicel and with a magenta patch at the base, 1385 [*hodgsonii*]; an almost equally big one, rather mauve-pink when fully open, 1386 [*puderosum*]; a beautiful deep crimson tree 1387 [*erosum*] which looks like a barbatum series, and the most delicate of the lot 1390 [*sherriffii*], a bell-shaped flower, with umbels of 3-4 flowers, of a very deep carmine colour". The other

three rhododendrons were the white or pink *vellereum* (1392); a form of the pale yellow *lanatum* which has been given the name *luciferum* (1389) because the thick tawny wool on the lower surface of the leaves is made by the native Lobas into a wick which is widely used in oil lamps and goes by the name of Bané; and the crimson, dark-spotted, *populare* (1391) once again. Rhododendrons *puderosum*, *erosum* and *sherriffii* were all new species and are now in cultivation, the latter having received the Award of Merit in 1966, grown from seeds of L. & S. 2751 collected from this same locality in October 1936.

May found the travellers in the region of the Le La (17,100 ft), a knife-edge pass or almost so, where the hillsides were covered with rhododendrons. "I don't think I have ever seen them so thick" wrote Sherriff on May 8; "The north face is covered with Abies [*delavayi*, 1572] but there are a number of pale lemon-yellow rhodos too [*lanatum* var. *luciferum*, 1557], also any number of pink ones which all seem the same though they show different forms. . . . This area must be wonderful later on when everything comes out. The rhododendrons themselves must be a sight worth seeing." On the edge of the rhododendron forest the dwarf *R. anthopogon* (1565) was in great profusion and showing considerable variation through many shades of pink to pure white. Variable too, and of tree-like habit, was another rhododendron in the fir forest. Sometimes (1564) the flowers were of varying degrees of pink, blotched and spotted with magenta, and at others (1566) cream with a pronounced basal magenta blotch. They were both forms of a new species later designated as *R. dignabile*. Another species which impressed Sherriff was *R. aganniphum* (1567) with trusses of pale pink funnel-shaped flowers. This species again illustrates the influence of western China on the flora of south-east Tibet for numerous collections made by Forrest and by Rock have shown that it is a common rhododendron in Yunnan and Szechwan.

The Tsari valley was another profitable rhododendron hunting ground, and a marvellously beautiful one. Most of the rhododendrons which had impressed the collectors in the Chayul Valley were here also, some, such as the bright pink *R. puderosum* in even greater abundance. But there were others which were quite new to them, two indeed which were new to science; *R. miniatum* (1627), a tree or shrub up to 15 feet tall with deep rose, rather fleshy bells, and the much lower-growing deep crimson *R. lopsangianum* (1651) which was named in honour of Nga-Wang Lopsang Tup-Den Gyatso, the late Dalai Lama of Tibet. *R. campylocarpum* (1628), one of the best pale yellow rhododendrons which has been in cultivation since the early 1850s and has been one of the parents of many fine hybrids, was much in evidence, as indeed were two species which once again demonstrated the link between the floras of the Himalaya and of western China; another yellow-flowered species *R. caloxanthum* (1656) and *R. calostrotum* (1649) the flowers saucer-shaped and grape-purple or a bright rosy-purple in colour.

At Migyitun, in Tsari, at the end of May they made two gatherings (1728 and 1730) of a 6 to 15-foot rhododendron which was clearly allied to the well-known dark red *R. thomsonii*, but with a loose truss of copper-red or blush-pink fleshy bells and with a glandular lower

surface to the leaf which was sticky to the touch. It was growing in the rhododendron forest at 11,000-15,000 ft. Ludlow and Sherriff met with the same plant again in 1938, in the Pachaksheri district of south-east Tibet (3750) and in October gathered seeds under the number 6567 from which this rather strange and striking plant was introduced into cultivation. Plants were raised and flowered in the garden of Messrs Gibson, of Glenarn, Rhu, Dunbartonshire and for several years bore the name of *R. thomsonii* var. *pallidum*. It is now realised that these plants represent a new species which has been named *R. viscidifolium*.

By June the flowering season was almost at its height and Ludlow and Sherriff were tortured with the thought of the prizes, elsewhere, which might be eluding their grasp: it was tempting to want to be in several places at once, and this they decided to do. Thus on June 12 Sherriff with a small party returned to the Chayul Valley to collect on the main Himalayan range above Natrampa and Lung, whilst Ludlow and Lumsden with their small party moved eastward into the Pachakshiri district before visiting the Tsangpo valley. By the end of the month Ludlow and Lumsden were in the Lo La Chu valley and from the alpine zone of the Lo La, from 13,500 feet upwards, they took a rich harvest of prostrate or low-growing rhododendrons most of which must have been covered with 4 or 5 feet of snow in the winter. That which impressed Ludlow most was a form of *R. campylogynum* (1882), no more than 2 feet high, the small bell-shaped flowers of which had the colour and bloom of a muscatel raisin "an astonishing colour". He also enthused about the prostrate *R. forrestii* var. *repens* (1883) with its large fleshy crimson bells, and about the precocious *R. mekongense* (1890, 1896), whose flat fleshy flowers were of golden-yellow, sometimes with a tinge of pink. All three rhododendrons are links between the floras of the Himalaya and Yunnan. One dwarf species, no more than a foot tall, was something quite distinct and quite new; the large saucer-shaped flowers, borne singly or in pairs, were a beautiful shade of primrose-yellow and spotted with reddish-brown at the base within. Very appropriately it was named *R. ludlowii* (1895) and under this number was introduced into cultivation. Without any question *R. ludlowii* is a most charming dwarf shrub especially suitable for the peat garden. However it is not a very vigorous grower and two of its hybrids probably will prove to be better garden plants. They were both raised by E. H. M. and P. A. Cox in Perthshire. One of them, 'Chikor' (*chryseum* × *ludlowii*), has received the Award of Merit in 1962 as well as a First Class Certificate in 1969 after trial at Wisley. The other, 'Curlew' (*ludlowii* × *fletcheranum*), gained a First Class Certificate in 1969. Undoubtedly *R. ludlowii* will be in the parentage of many another fine hybrid.

Of course not all the rhododendrons in the alpine zone of the Lo La were dwarf. The form of *R. cerasinum* (1873) with the lower part of the flowers white and the edges of the lobes bright rose, which Kingdon Ward had discovered in upper Burma in 1926 and had called "Cherry Brandy", was a handsome shrub of up to 10 feet tall in the conifer forest at 12,000 ft. Of similar stature and in the same situation and elevation was the pinkish-red *R. keysii* (1904), differing colour forms of

which Ludlow & Sherriff had collected in 1933 (184) and 1934 (588). And another reminder of these earlier expeditions and inhabiting rocky hill-slopes on the north face of the pass at 13,000 ft were the pale lemon-yellow *R. campylocarpum* (1893) and a form of *R. cinnabarinum* (1894) with clusters of orange-pink pendulous bells.

For his part, Sherriff discovered two new species. One of them, *R. laudandum* (2160), a two-foot shrub with tight heads of the palest pink and narrowly-tubular flowers, covered the hillsides, at 15,000 ft, at Lapu in Tsari. The other, *R. igneum* (s. Cinnabarinum) (2334), 4 miles below Lung, was an 8 to 12-foot shrub with an abundance of bright salmon flowers.

In 1937 Ludlow had commitments in Kashmir and thus Sherriff had to travel without him, for four months exploring in central Bhutan, mostly in the region of the high peaks known as Dungshinggang, or the Black Mountain. Of the 660 gatherings he made, some 60 were of rhododendrons most of which by this time were not unfamiliar to him, except for the strange habitat of some and the enormous size of others. For instance at the end of April in the Gale Chu valley in southern Bhutan, the forests were so thick at 5,000 to 6,000 ft that it was quite impossible to botanise in them. Occasionally a fallen bloom on the track would tell of flowers many feet overhead in the tall trees. Thus a few creamy-white petals which Sherriff picked from the ground, as well as a strong pervading fragrance, revealed huge 100-foot specimens of the magnolia-like *Michelia doltsopa*. Whilst gazing in admiration at one of these splendid trees Sherriff spotted, what seemed to him, a rhododendron growing epiphytically on one of the michelia branches a full 70 feet from the ground, in, he thought, a completely inaccessible place. But Tsongpen, Sherriff's collector, thought otherwise and to prove his point climbed the tree and secured specimens of a rhododendron of poor scraggy habit with almost naked 8 to 12-foot branches but bearing terminal clusters of 2 to 4 huge flowers pure white or sometimes faintly tinged with pink and most magnificently scented; it was *R. edgworthii* (2952). From similar habitats and of similar habit Tsongpen also collected the rich cream red-striped flowers of *R. rhabdotum* (2940, 2944). In the Mara Chu valley of central Bhutan Sherriff found both these species to be very common, on oak and other trees at 7,000-8,000 ft, some young plants of *R. rhabdotum* (3136), barely a foot tall, carrying a couple of flowers. Here too were *R. polyandrum* (3164), the pinkish young flowers fully expanding to pure white funnels, and the fragrant pink-flushed *R. maddenii* (3147).

It was the number and size of the rhododendrons, especially those of southern Bhutan, which impressed Sherriff most. For instance, from 8,000-10,500 ft in the Jirgang Chu valley they were an astonishing spectacle. *R. grande* (2977), *R. falconeri* (2983), *R. hodgsonii* (2987) and *R. eximium* (2989) were not only growing in vast profusion, but all averaged between 40 and 50 feet in height and one particular specimen of *R. grande*, at 8,000 ft, was at least 70 feet high with a girth 5 feet from the ground of 9 feet. Between 9,000 and 10,000 ft. *R. falconeri* literally covered the hillside with its great flower trusses and handsome bright brown-backed leaves, some as much as 18 inches long and 9 inches broad. At the lower elevation the bell-shaped flowers

were of a beautiful lemon-yellow with a large basal magenta blotch, and darkened in colour, with age. But at the higher elevation the colour was paler and the basal blotch smaller. At 10,000 ft, *R. falconeri* gradually gave place to a dull dark wine-red form of *R. eximium* which was, above 10,000 ft in the bamboo zone, the dominant rhododendron along with the bright pale magenta *R. hodgsonii*.

Ludlow was free again in 1938 to rejoin Sherriff and the two friends, with Dr (now Sir) George Taylor, spent a most memorable ten months travelling further eastwards into Tibet, through the provinces of Takpo and Kongbo and along the main Himalaya to the neighbourhood of the great mountain Namcha Barwa (24,445 ft) which with the rather less impressive albeit more massive Gyala Peri (23,460 ft) forms the portal of the tremendous gorge which the mighty Tsangpo cuts through the Himalaya. During these ten months of 1938 the three friends amassed over 4000 magnificent gatherings of dried plants of which close on 250 were of rhododendrons. As has been said already, only two new rhododendron taxa were represented, *R. trilectorum* and *R. chaetomallum* var. *chamaephytum*.

In the Pachakshiri district towards the end of April they came upon their first really exciting rhododendrons; trees 20 feet high of *R. grande* (3663) carrying huge trusses of pale lemon-yellow flowers; trees equally as large with lovely smooth light brown bark and with fine dark crimson bells of *R. hookeri* (3676); magnificent forms of the straggly, sometimes epiphytic, and always marvellously fragrant *R. lindleyi*, some with the great trumpets pure white save for the golden base (3665), others delicately or sometimes more strongly flushed with rose[5], and the sticky, green-bristly, bright rose-flowered *R. rude* (3670). They were all gathered on the Nyug La, were first records for south-east Tibet, and this was the first time *R. rude* had been found outside Yunnan.

In the third week of May, in order to cover as much ground as possible, the expedition divided into two. Sherriff decided to work the main Himalayan range concentrating on the Lo La, Pa La and Tsari Sama passes. Ludlow and Taylor on the other hand, decided to explore the main range to Gyala at the head of the Tsangpo gorge and the last Tibetan village on the Tsangpo, as well as to visit Pemako and the passes in the vicinity of the Doshong La which had been a happy hunting ground for Kingdon Ward.

It was at Tsari Sama that Sherriff found the finest rhododendrons in the greatest profusion. There was the purplish-pink, or apple-blossom-pink, rather shallowly cup-shaped-flowered *R. charitopes* (5565) which was one of Farrer's discoveries in upper Burma, was known also from Yunnan, and now was found for the first time in south-east Tibet. There was an abundance of Ludlow's new species from the Lo La, *R. ludlowii*, creeping along the moss-covered rocky soil of the hillsides at 13,000 ft its flattish primrose-yellow flowers being flushed and spotted with pink. In October Sherriff collected seeds (6600) and introduced the lovely plant into cultivation. Another prostrate species, higher up the hillsides, was by no means common; it was

5. It was such a darkly flushed form which received the Award of Merit in May 1969 when exhibited by the Messrs Gibson, of Glenarn, Rhu, Dunbartonshire under the name of 'Geordie Sherriff'.

rather a remarkable form of *R. forrestii* (5572) with fleshy, slightly orange-pink bells instead of the usually brilliant scarlet ones. And obviously closely akin to this, and of much the same height – no more than a foot – covering rocks on the hillside with an admirable blending of dark green foliage and the palest of yellow flowers, was the new species, *R. trilectorum* (5582). These rhododendrons apart, some of the rock ledges at 14,000 ft at Tsari Sama were clothed with the pale yellow form of *R. tsariense* (5581), the lower sides of the leaves plastered with a thick fawn or pale greyish-brown felt, whilst in large groups on the stony hillsides were two of Forrest's Yunnan discoveries; *R. callimorphum* (5584) one of the most charming species in the entire genus with its trusses of half a dozen soft rose, often crimson-blotched, cup-shaped flowers, much darker rose when in bud, and a form of *R. erythrocalyx* (5568) which tended to hide among the oval leaves the pale pink flower-trusses.

For their part Ludlow & Taylor found many rhododendrons to catch the eye in the rhododendron zone of the Lusha Chu valley. There were acres of dwarf plants no more than 2 feet tall forming a thick colourful and aromatic undergrowth; *R. forrestii* (4751) sometimes a prostrate creeper, sometimes more or less erect, with bright red or scarlet bells varying much in size; *R. calostrotum* (4711) with its flattish magenta-purple flowers; *R. paludosum* (4784), a very dominant carpeting shrub no more than 12 inches high with its usually solitary flowers in all shades of magenta to lilac-purple; these are all representatives of the Yunnan mountain flora above 12,000 ft. Co-dominant with *R. paludosum*, and of the same habit, was *R. fragariiflorum* (4785), its shallow pinkish-purple or purplish-crimson or even crushed-strawberry flowers in clusters of up to six, whilst the dwarf *R. anthopogon* (4781) clothed the north aspect of the hillside with sheets of all shades of pink as well as of cream and *R. pumilum* (4765) stained the avalanche slopes with pink and rose. These are fairly common Himalayan species. Amongst the taller growing species there was a pale form of *R. wardii* (4747) another Yunnan and Szechwan plant, the saucer-shaped flowers of ivory-white blotched at the base with claret; the white-flowered form of the new species, *R. dignabile* (4808), forming dense thickets on the hillsides; still another new species conspicuous on the broad rock ledges, *R. tsariense* (4757), the leaves cinnamon-felted below and the reddish flower-buds maturing to trusses of white, delicately pink-flushed and slightly red-spotted cups.

Kingdon Ward had called the Doshong La "a rhododendron fairyland" and even he, so fluent of pen, had confessed to the difficulty of describing the rhododendrons as he saw them in June; . . . "the valley, flanked by grey cliffs, roofed by grey skies, with the white snowfields above spouting water which splashed and gurgled in a dozen babbling becks, and everywhere the rocks swamped under a tidal wave of tense colours which gleam and glow in leagues of breaking light. The colours leap at you as you climb the moraine; "Scarlet Runner" [*R. forrestii* var. *repens*] dripping in blood-red rivers from the ledges; "Scarlet Pimpernel" [*R. forrestii* var. *repens*] whose fiery curtains hang from every rock; Carmelita [*R. chamae-thomsonii* var. *chamaethauma*] forming pools of incandescent lava; Yellow Peril [*R. campylocarpum*] heaving up against

the foot of the cliff in choppy sulphur seas breaking from a low surf of pink 'Lacteum' [*R. doshongense*] whose bronzed leaves glimmer faintly like sea-tarnished metal".[6]

From this "rhododendron fairyland" Kingdon Ward had gathered at least a dozen fine species. But he had by no means exhausted the treasures of the pass for, from the almost inextricable dwarf thicket-tangle of the rhododendrons which in places dominated the boggy hillsides, Ludlow & Taylor collected two which Ward had not taken; the small, greenish-yellow tight-trussed *R. cephalanthum* var. *nmaiense* (5240) and the deep magenta-pink *R. charitopes* (5237).

During the years of the war both Ludlow and Sherriff were occupied with important war duties, for a time in Lhasa, and the former also in Ladakh in Kashmir, and in Sikkim, the latter also in Gangtok, and in Kalimpong where, in 1942, he married the youngest daughter of the remarkable Dr John Anderson Graham who, through his organisation of the St Andrew's Colonial Homes for children of European and mixed parentage, has made the name of Kalimpong more familiar to many English speaking people than it otherwise would have been.

The war over, Ludlow met the Sherriffs in Kashmir in 1945 and in October of the following year the three of them, with Colonel Henry Elliot of the Indian Medical Service, set out once again for south-east Tibet, this time for the almost unknown province of Pome and the great gorge of the Tsangpo. Unfortunately in the spring of 1947 Sherriff began to suffer from an overstrained heart and in April he and his wife had to leave their two companions in the Tsangpo gorge to return to lower altitudes in India. On this expedition Ludlow and Sherriff made their biggest haul of rhododendrons, some 350 gatherings; and although only one new taxon was represented, *R. pomense* (s. Lacteum) L. S. & Elliot (13177), their specimens threw a good deal of light on the natural variability, and distribution, of well known species.

As Kingdon Ward had visited the Tsangpo gorge in 1924 it was to be expected that several species found by Ludlow, Sherriff & Elliot would have been previously found by him. One such was *R. scopulorum* (12264) which on the Lower Po Tsangpo valley was unfolding its fragrant apple-blossom-pink trusses as early as the end of February. Ward had discovered it in the Tsangpo valley in 1924, growing, as the specific name implies, on boulder screes and on steep rocky slopes either in full sun or in thickets. Ward collected seeds and introduced the lovely species into cultivation as a plant for the cool greenhouse; as such it received the Award of Merit in 1936 when exhibited by Mr Lionel de Rothschild. Sherriff gathered seeds under the number 12231. Another Kingdon Ward discovery, this time in eastern-upper Burma and the adjoining part of western Yunnan, was the deep crimson-flowered *R. tanastylum* (12280) which Sherriff found in the gorge country.

When the Sherriffs sadly set out on their long journey back to India, on April 20, Ludlow and Elliot set out eastwards for Gyala and the Tsangpo gorge. They halted first at the village of Tamnyen where several rhododendrons were in flower, the most conspicuous being one which Ludlow knew well, for he had collected it on several occasions in

6. Kingdon Ward, *Riddle of the Tsango Gorges*, 106 (1926)

1936 and 1938 and had noted its variation in colour from white to rose, *R. vellereum* (13524); at Tamnyen it formed prominent belts on the hillside along the 11,000 ft contour line. It was another of Kingdon Ward's 1924 discoveries on the Tsangpo valley. Another of his discoveries, now much in evidence, was "Ward's Mahogany Triflorum", *R. triflorum* var. *mahogani* (13546), the zygomorphic normally yellow flower, in trusses of 2 to 4, having a mahogany-coloured blotch and spots or being in varying degree suffused with mahogany. Still another distinguished Tamnyen rhododendron was a white-flowered form of the variable and common Yunnan and Szechwan *R. uvarifolium* (13521).

From Gyala on April 27 the travellers began a memorable journey to the little monastery at Pemakochung, finding, at Kumang, *R. leucaspis* (13549) which Ward had discovered in this very locality in 1924, *R. hirtipes* (13551) with five pinkish-red lines on the otherwise pale pink flowers, and the pink *R. virgatum* (13550). The following day they were on a pass called the Musi La or the Sulphur Pass, descending form which, on the way to Nyuksang, they dropped 2,000 ft in a couple of miles passing first through pure rhododendron forest. Two of Forrest's Yunnan discoveries, *R. uvarifolium* (13567) and *R. anthosphaerum* (13559) were in great abundance and showing marked variation in flower colour. The former, which Ludlow regarded as perhaps the commonest rhododendron in the Tsangpo gorge, sometimes carried trusses of white flowers, sometimes of white flushed with rose, and sometimes of pale rose the flowers might be spotted and blotched with crimson or quite free from these markings. Similarly the flowers of *R. anthosphaerum* varied from rose to rose-magenta to mauve, and a dark crimson blotch was usually present. The other outstanding and very common species was one which Ward had discovered in the Tsangpo gorge in November 1924, and which *he* had described as the most abundant rhododendron throughout the gorge, in the region of Pemakochung forming practically pure forest, *R. ramsdenianum*. Ward never collected flowering material, and until Ludlow & Elliot now gathered its blood-red trusses (13561) the only flowering material known to botanists was that taken from plants grown from seeds of KW 6284 in the garden of Sir John F. Ramsden, at Muncaster, in 1934.

Similarly, the only flowering material in herbaria of Kingdon Ward's Tsangpo gorge *R. auritum* was that taken from plants in cultivation grown from seeds of KW 6278, gathered in November 1924. These plants flowered both in Sir John Ramsden's garden, as well as in The Royal Botanic Garden, Edinburgh in 1930. Now, between Nyuksang and Senge Dzong, in the gorge, Ludlow & Elliot found the species sprawling over the cliffs (13570) and took its smooth coppery-red stems and creamy-yellow flowers for their plant presses. And into their presses they proudly placed the great trusses of white or pale mauve, purple-spotted flowers, from the splendid 15-foot trees of *R. mollyanum* (13568). Ward had collected fruiting material of this fine plant at Pemako in October 1924 (KW 6261) under the tentative name of *R. sinogrande* a species which Forrest had discovered on the western flank of the Shweli-Salwin divide, in north-west Yunnan, in 1912. Not until plants flowered in gardens in Britain, notably in the garden

of the Duchess of Montrose at Brodick, Isle of Arran, under the number KW 6261, was it realised that Ward's plant was different from Forrest's and was named *R. mollyanum*. It is of interest that the herbarium specimen Ward collected under 6261 is not of *R. mollyanum* but of *R. exasperatum*, another of Ward's new species which Ludlow and Elliot were also shortly to find.

The next day, 30 April, Ludlow and Elliot reached their destination, Pemakochung (8,807 ft), where the monastery, a little wooden erection perched on a mound and surrounded by one or two miserable fields choked with weeds, was hemmed in to the south by dark conifer forests beyond which rose the snowy splendour of the great Sanglung (23,018 ft) peaks and ridge descending from Namcha Barwa (25,445 ft). On taking his customary evening stroll Ludlow was given a foretaste of the rhododendron riches of Pemakochung. Forming loose straggling tangled thickets on rock faces and in rather swampy ground in the mixed forest there was a species (13584) with compact trusses of up to ten fleshy tubular-cup-shaped deep crimson flowers, each with five conspicuous black nectaries at the base. It was the species of which Ward had gathered seeds in this same locality in November 1924 under the number KW 6285. When plants from these seeds had flowered in various gardens in Britain and had gained the Award of Merit in 1933 (exhibited by the Hon. H. D. McLaren) they had been named *R. venator*.

The following day, and in a fairly short time, they found no fewer than nine different species on a cliff-face which was aglow with pink and crimson. "At every few steps I uttered some rapturous outburst as my eyes lighted on the splendour of some glorious plant. It seemed as though Pemakochung was the birthplace of the genus, the very epicentre from which it had sprung", wrote Ludlow in the *Gardener's Chronicle* in 1958.

There was the well-known *R. thomsonii* (13589) not only with a port-wine-red corolla but with a blackish-red calyx as well. There was *R. ramsdenianum* (13596), this time not with blood-red trusses but with flowers of dark reddish-pink, the posterior petal with darker spots. There were at least two distinct forms of Forrest's *R. anthosphaerum* – one (13593) with the pink flowers striated with reddish-pink on the posterior petal, the other (13594) with all the petals of the pink flowers, especially the posterior one, densely streaked with purplish-red. There was another of Forrest's Yunnan discoveries, the very variable *R. glischrum* (13590); the specimens Ludlow & Elliot collected carried fine trusses of pink, dark purplish-blotched, flowers. There were three of Kingdon Ward's discoveries. The compact rich pink-trussed *R. lanigerum* (13591) formed a splendid tree up to 20 feet, its leaves carrying a brown woolly indumentum on the lower surface; Ward had found a good deal of it on rhododendron clad slopes in the Delei valley of the Assam Himalaya on his 1927-28 expedition. Also with deep rich pink flower-trusses – as well as with bristly shoots and petioles – was Ward's *R. exasperatum* (13595); he had found it on three different expeditions – here at Pemakochang, in November 1924, at Seinghku Wang in northern Burma in June 1926, and in the Delei valley in 1928; like *R. glischrum* it is a member of the Barbatum series

and Ward's discovery of it in Assam served to link the Barbatums of the Himalaya with the Burmese and Yunnanense members of the series. The third Ward plant was *R. uniflorum* (13592) no more than 2 feet tall with solitary, or sometimes paired, purple or mauve flowers; Ward had discovered it on the Doshong La in 1924. The other rhododendron which Ludlow and Elliot found on this memorable day and on this remarkable cliff-face was a five-foot shrub with blood-red flower-trusses which no one, save Ludlow and Sherriff, had ever seen; it was the new species, *R. populare* which they had discovered at Chayul Chu during their 1936 Tibetan expedition; Ludlow and Elliot now collected more of it under 13598.

On each of the next four days they filled their plant presses with more rhododendrons; more forms of *R. glischrum*; more forms of *R. anthosphaerum*; more forms of *R. ramsdenianum*; several forms of *R. oreotrephes* (13613, 13614, 13622) which Forrest had discovered on the Likiang range in Yunnan in 1910, from the palest pink, to darker pink with a purplish tinge to apricot-yellow; two of Ward's new species from the Doshong La in 1924, the small twiggy *R. kongboense* (13633) with small, tight, bright rose flower-trusses, and a form of *R. parmulatum* (13612) with rather loose trusses of flowers the ground colour of which was pale yellow with apple-blossom-red toward the tips of the petals, "a very strikingly coloured and handsome shrub" Ludlow described it.

Ludlow and Elliot could only afford five days at Pemakochung and thus were able to gather only a mere tithe of the vast plant treasures of the area. They had to leave the great Sanglung valley which descends from Namcha Barwa quite untouched. To have reached it would have meant hacking a track through the forest for there were no paths save those made by herds of takin. They could only speculate on the richness of the flora of this unknown and uninhabited valley. "I wonder what this virgin country holds as regards flowers. During the past four days I have obtained 30 different species of rhododendron [some were forms of species]. I imagine if I came here, say in mid-June, I should be able to add another 30 species to my collections by working the higher altitudes and all would be different from those we have been collecting during the past four days. The trouble about this place is that there are only a few tracks here and there, and that it would be impossible to camp higher up unless one had a number of permanent coolies to cut a road. These would have to come from Gyala and they would have to feed themselves as no supplies are available locally. This means that other coolies would have to be engaged to carry the permanent coolies' food". Thus Ludlow mused in his diary of May 4 and the question of how best to organise botanical exploration in this almost virgin country continued to exercise Ludlow's mind for the rest of the expedition, to the extent that "in 1948 I made plans to spend an entire flowering season in this gorge country with Pemakochung as my base, but the Tibetan Government, fearful of communist China, withheld their consent – for the first time – to this last request I shall ever make of them".[7]

Returning to Gyala the two collectors parted company – Elliot to botanise on the passes on the main Himalayan range which Ludlow,

7. Ludlow, *Gard. Chron.* 143, 103, (1958)

Sherriff & Taylor had been unable to explore in 1938; and Ludlow to explore the great Yigrong range.

On his way to the Yigrong Ludlow found the rhododendrons in the Rong Chu valley at their splendid best. Along the banks of the river, growing quite in the open and no more than 3 feet tall, the Yunnan *R. primuliflorum* var. *cephalanthoides* (13698, 13699), in several forms, was a common sight, its small compact flower-trusses, sometimes yellow, sometimes pale rose, and occasionally white. Common too, in the same situation, was the solitary purple-flowered *R. nivale* (13701), one of Hooker's Sikkim discoveries of 1849-50. On the other hand *R. dignabile* (13703), one of the new species from the 1936 expedition, grew not in the open but sought the shelter of the abies forest; it was a handsome plant of 10 feet and the white flowers frequently had a prominent pinkish-red suffusion and a dark purple splash at the base of the posterior petal.

In the country of the Nambu La (14,970 ft), the pass on a spur projecting southwards from the Yigrong, many of the rhododendrons were in their prime in early June; in places, for half a mile or more and from 12,500-13,500 ft, the hillsides were stained with their colours. Not a great diversity of species was present, but such species as there were showed a marked degree of variation. Even the usually pure white *R. puralbum* (13842) showed flowers which were tinged with yellow. Some forms of *R. dignabile* (13857) carried creamy flowers which were faintly suffused with purple whilst others had a purplish tinge only on the posterior petal of the otherwise lemon-yellow flowers (13843). Most variable of all was *R. agglutinatum* (13855, 13858); there were forms with pure white flowers, white with small reddish streaks on the posterior petal, through all shades of pink and all degrees of red spotting. They were all growing intermixed and wove a beautiful pale tapestry of colour.

In the meantime Elliot had a splendidly profitable time on the passes on the main Himalayan range in the vicinity of Pe at the height of the flowering season, and made over 500 gatherings. From the Deyang La (14,176 ft) where he spent a couple of weeks, he made close on 200 gatherings, including over forty rhododendrons, the most conspicuous plants on the pass, representative of over twenty species and varieties. With the exception of *R. chloranthum* (15193) close ally of the well-known *trichocladum*, none of them was new to the collections but many were interesting and important from the point of view of distribution and in showing the variability of well-known species. The flowers of *R. wardii*, for instance, varied from the most pale of yellows to a rich sulphur-yellow; sometimes they were quite free from any markings on the petals; sometimes the posterior one would carry small pinkish patches at the base and at other times a large purple blotch; usually the young flowers, not fully opened, were of a clear yellow, but sometimes would be flushed in varying degrees with pink. *R. hirtipes* might be almost pure white, several shades of pink, or a mixture of white and pink, or even pale yellow; the posterior petal might be free of spots, or lightly or heavily speckled with purple and with or without a basal purple patch. The flowers of *R. cephalanthum* ranged from white through pale pink to dark pinkish-

red, sometimes with a bright red tube. In *R. erythrocalyx* the red sepals were by no means a constant character for often they were a clear green, with no trace of any red pigmentation. With such variation in the field it is little wonder that there is so much among rhododendrons in cultivation.

It was much the same story on the Doshong La (13,500 ft), Kingdon Ward's "rhododendron fairyland", visited by Ludlow & Taylor in 1938. Among the ten different rhododendrons Elliot gathered were the two forms of *R. cerasinum*, one with flowers of dark crimson (15279, 15280), the other with more or less white bells stained with cerise around the rim (15281) which Ward had named "Coals of Fire" and "Cherry Brandy" respectively; very much the same form of *R. parmulatum* (15291) which Ludlow & Elliot had found at Pemakochung but with the very pale yellow, rose-tipped petals heavily speckled with purple; and a species new to the Ludlow and Sherriff collections which Forrest had discovered on the border of Yunnan and south-east Tibet in 1919, the creamy-white, purple-blotched *R. telopium* (15306), close ally of the well-known *R. caloxanthum*, Farrer's discovery in north-east upper Burma in 1919 and 1920. Though they did not realise it at the time this 1946-47 journey was to prove to be Ludlow & Sherriff's last Tibetan expedition.

By 1949 Sherriff appeared to have fully recovered and both he and Ludlow had officially left India. But before settling in Britain they decided to have one more expedition, "our final fling" as Ludlow called it. In fact they decided to have two expeditions; the Sherriffs would spend a summer in the Mishmi hills of Assam, whilst Ludlow would return to the Tsangpo gorge. However, as both their plans for travel were refused by the authorities concerned, they turned to their good friend His Highness the Maharaja of Bhutan for permission to undertake further botanical exploration in Bhutan – and their wishes were granted. But Ludlow & Sherriff still decided to go their separate ways with the intention of working the whole of temperate and alpine Bhutan from west to east. Thus Ludlow concentrated his activities in western Bhutan, Sherriff in central Bhutan, whilst Mrs Sherriff with Dr J. H. Hicks who had joined the expedition as medical officer, collected in east Bhutan. In spite of the fact that, owing to a loose saddle girth, Mrs Sherriff was thrown from her mule, broke her arm and had to return to India, their collection of 5,000 gatherings was the largest they ever made, and included over 200 gatherings of rhododendrons.

On April 1, Ludlow arrived in the Ha valley in west Bhutan, which he had first visited in the latter part of May 1933, to find the whole place ablaze with the dark crimson flower-trusses of 30-foot trees of *R. arboreum* (16007) and of *R. ramsdenianum* (16009), which abounded in the surrounding conifer forest and along the banks of the Sharithang river; with the pinkish-white *R. ciliatum* (16019); with a form of *R. cinnabarinum* (16027) with apricot-red to yellow bells which the local children ate with relish after first plucking away the stamens and ovary; with the apple-blossom-pink *R. virgatum* (16054); with the epiphytic, woolly-shooted cream-flowered *R. pendulum* (16117); and with, finest of all, *R. griffithianum* (16068) a shrub no more than four feet tall whose large, loose, pink-suffused white trusses were so fragrant that

Ludlow at first mistook it for a member of the scented Maddenii series.

As Ludlow was in no hurry to reach his collecting ground in the north he took a fishing holiday and it was not until the beginning of June that he reached the Upper Mo Chu valley and collected further rhododendrons. Here he gathered the small maroon-flowered *R. baileyi* (16442) which F. M. Bailey had discovered in 1913 on his journey to the upper reaches of the Tsangpo river; though Bailey did not collect specimens he did send seeds to the Royal Botanic Garden, Edinburgh, whence they were distributed to other gardens and in this way introduced the species to cultivation in Britain. Most of the rhododendrons had already flowered; only *R. hodgsonii* (16494), two distinct forms of *R. cinnabarinum* – one with dull apricot flowers (16492), the other with red (16493), var. *roylei*, and the pale sulphur-yellow *R. campylocarpum* (16495), all at 12,000 ft were still blooming. At the lower elevation of 7,500-8,000 ft, he was able to pick the great cream, red-striped trumpets of *R. rhabdotum* (16523) growing both on trees as well as on the ground on the open hillsides, as well as the pinkish-white fragrant flowers of *R. maddenii* (16524). On the whole Ludlow was disappointed with his rhododendron collections.

And Sherriff was not greatly pleased with his. The Sherriffs and Hicks arrived in Bhutan at the end of March and were entertained for a week by his Highness the Maharaja at Kinga Rapden. In the region of Kinga Rapden there were a number of rhododendrons. A bright red form of *R. arboreum* was common; and so was *R. grande* (18660) – a tree up to 40 feet tall with great trusses of pale yellow, purple-nectar-pouched bells. And moving eastwards toward Pimi and the Rudo La (12,600 ft), Sherriff found what he described in his diary for the 16 April as "certainly the finest thing we have yet seen, a rhododendron (18720) which I cannot make into anything in the rhododendron book. This is a tree 20-30 ft with a nice, clean, smooth, thin, flaking bark and lax trusses of 3 or 4 enormous flowers. When they are in bud they are a good pink and even when first full out they are pale pink but go white later. The curious thing is the absence of glands on any part of the ovary. I hope this may be a new one. It is a real beauty, should be hardy, and we are practically certain to get ample seed". It is a strange thing that Sherriff did not recognise his rhododendron as *R. griffithianum*, a species he knew well; possibly, like so many others who have become interested in rhododendron taxonomy, he was misled by the glandulosity, or otherwise, of the ovary! In October seeds were gathered under 21483.

The Rudo La proved to be Sherriff's most profitable hunting ground. In addition to *R. griffithianum* there was *R. rhabdotum* (18877) in abundance in the rain forest; usually it was an ungainly straggly shrub and sometimes epiphytic, but always bore heads of 2 to 5 magnificent fragrant flowers. And on the east side of the pass, much wetter than the west side, there were other rhododendrons in plenty. There was the pale creamy-yellow, dark-spotted *R. triflorum* (18881) at 9,500 ft. There was the rose form of *R. arboreum* (18882) up to 30 feet tall, at 10,500 ft. And in the next 2000 ft there was *R. hodgsonii* (18884), 30-foot specimens covered with large compact rose-pink to pale pink trusses; *R. glaucophyllum* (18887) no more than two feet tall covering the rock

faces with rose-pink flower-buds and very pale pink, darkly spotted mature flowers; the white, reddish-brown-spotted *R. pendulum* (18888) trailing its woolly young shoots over the cliff-faces; *R. cinnabarinum* (18889) varying greatly in colour, sometimes a good yellow, sometimes salmon, sometimes red-salmon; two quite distinct colour forms of *R. lanatum*, one (18890) pure yellow-cream with a varying degree of red spotting, the other (18890A) distinctly pink; a purple-mauve to blue-mauve form of *R. wallichii* (18898); and the creamy-yellow, red-speckled *R. wightii* (18899).

Mrs Sherriff and Hicks left Sherriff on 22 April and began their journey to the Me La in the north-east of the country. By the end of the month they were camped at Tobrang in the Trashiyangsi Chu valley and were surrounded by rhododendron forest, but forest with so dense an undergrowth of bamboo as to be almost impenetrable except after much cutting and then much crawling on hands and knees. *R. griffithianum* (20220), deep pink in the bud, both the pink (20583) and the crimson (20586) forms *R. arboreum*, the crimson *R. neriiflorum* subspecies *phaedropum* (20582), and the orange and yellow form of *R. keysii* (20581) – all were dominant and gave much colour to the landscape.

The cliffs in the region of the Trashiyangsi Chu were the favoured habitat of many more rhododendrons; the tubular-flowered form of *R. glaucophyllum* known as *tubiforme* (20613, 20623), the flowers shading from deep rose-pink almost to white, and sometimes crimson-spotted; the orange-belled form of *R. cinnabarinum* (20622); one form of *R. lanatum* (20628) the yellow flowers vermilion-speckled and the lower side of the leaves with a pale fawn indumentum, and another (20648) with orange bands running along the yellow petals and with an orange-brown felt below the leaves; a form of *R. pendulum* (20627) the red-spotted white flowers shaded with pink; *R. wightii* (20641, 20642) varying from a pale to a deeper yellow, always red-speckled and sometimes crimson-blotched as well.

Such then are some of the more interesting rhododendron gatherings made by Ludlow and Sherriff and their colleagues; interesting in that some represent new taxa, many extend the distribution of previously known species, and almost all illustrate the great variability of species in the wild. In all the collectors made close on 1,200 gatherings of rhododendrons and all their numbers, with identifications, are listed on pages 250-270 of Part I of the *Rhododendron Handbook for* 1967. Wherever possible the collectors harvested seeds, often with great difficulty, and such seeds as were harvested were distributed, under the collectors' numbers, to those most interested in the cultivation of rhododendrons in Britain. Whilst it would appear that few Ludlow and Sherriff introductions have made any great impact on British rhododendron gardens, it would be good to know, 25 years after their last expedition, which L. & S. gatherings are cultivated and the collectors' numbers under which they are being grown. Such information would be of great interest to the rhododendron authorities at the Royal Botanic Garden, Edinburgh and the Regius Keeper of the Garden would be grateful for any such information readers of these notes may be able to give him.

Tregye: Rejuvenating a Rhododendron Garden in Cornwall

EDWARD NEEDHAM

The many wooded valleys running into the estuary of the Fal enjoy a mild coastal climate combined with a degree of shelter from the worst of winter gales, and besides well-known estates such as Trelissick and Tregothnan there are a number of smaller gardens of interest. Tregye is of some note historically as two of Cornwall's great gardening families had a hand in it. The original planting was done in the late nineteenth century by John Boscawen, whose father, the sixth Viscount Falmouth, was responsible for much of the present garden at Tregothnan; his uncle created the once-famous rectory garden at Lamorran, his cousin that at Ludgvan.

The garden at Tregye was in two parts. Around the house and along the drive, was a semi-formal planting of conifers, camellias, and rhododendrons; some very large camellias remain, and several plants of a very fine pink *Rhododendron arboreum* with brown indumentum (*R. campbelliae* Ed.). Separated from the house by a field, and accessible, as it still is, only by a farm track, a small steep valley with some oak cover invited the creation of a wilder type of garden. Conifers were planted to give more shelter, and the small stream dammed to form two ponds; the smaller of these has that indispensable feature of the Victorian romantic garden, a grotto, carved out of the rock of the hillside. A *R. falconeri* planted at this time reached a great size before being crushed by a tree, but a layer from it has already flowered. In 1916 the garden passed into the care of Mrs Powys Rogers, sister of J. C. Williams of Caerhays. The most noteworthy survivor from this time is a fine plant of *R. sinogrande*, but considering the enormous numbers of new plants that were being raised at Caerhays at this period, there is a surprising lack of other species of real note. After Mrs Rogers' death, sporadic attempts were made to maintain the garden but no new planting was done, and when the house became a hotel it was neglected altogether. When I bought the valley in 1970, it was a wilderness of fallen trees and overgrown laurels.

Of the first two years, little need be said, since they were occupied with navvying rather than with gardening. Both ponds had silted up almost completely, but the most pressing need was for more light. Apart from the inevitable self-sown ash and sycamore, much of the wood had originally been coppiced oak, and this had grown up into very unthrifty trees raining dead branches on to everything beneath; on the south side, a plantation of Spanish chestnut was rapidly shading out some fine conifers and maples. All the trees that were taken down were pulled out with a hand winch – an energetic but satisfying pursuit, leaving the ground quite clear and avoiding trouble with honey-fungus. The chestnuts provided enough posts to re-fence much of the boundary.

We can now take stock of what remains. The entrance to the garden is at the north-west corner, and this, at 200 feet, is also the highest

point and enjoys a glimpse through the trees of the Carrick Roads and St. Anthony Head and lighthouse, six miles away. To the left is a strip of land, more recently acquired, that was originally orchard but is now overgrown with sapling ash; these are being thinned and interplanted with acers and other deciduous trees to form an open glade. In front, the ground slopes steeply down into the valley, which runs from west to east; a broad path zig-zags down and then runs the whole length of the south-facing slope. At the head of the valley is the smaller pond, fed by a waterfall (noisy in winter but a mere trickle during a dry spell) and near it the *R. falconeri*. The opposite bank is very steep, forming a cliff above the pond, and is planted with maples and various conifers. This area seems particularly frost-free and so is very suitable for the more tender rhododendrons, though they seem to come into growth just as early here as on the south-facing slope. Turning left along the stream, there are two larger maples, one of which colours magnificently in November, and a group of camellias, of which the best is a very large 'White Swan'. There are also some hybrid rhododendrons of *fortunei* descent, delicate in flower but rather nondescript in habit. Beyond them is the *R. sinogrande*, and across the stream two very large tree-ferns. Nearby is a very pretty form of *R. arboreum* with white flowers tipped with pink.

The very damp area below the pond was originally planted with rhododendrons, but they all died from one cause or another. It has now been levelled to form a small meadow, partly to give contrast to the more closely planted areas, but also to allow access to a layer of quite good peat beneath the surface soil. A few of the American azalea species will be added later. On the north slope are more rhododendrons, among them *R. arboreum* var. *roseum*.

Despite the presence of so many exotics, the steepness of the valley, the many large oaks and the profusion of ferns and other native plants creates an impression of wildness which it would be a pity to destroy either by over-cultivation or by introducing anything too obviously of cultivated origin. My own passion for gardening grew out of an interest in wild plants, and whilst I would not exclude cultivated forms altogether – some of the *williamsii* camellias, for example, have all the qualities of wild plants, which many forms of *C. japonica* do not – by and large my interest has remained with plants that have originated in the wild. This is especially so in the case of rhododendrons, since whilst not wishing to deny the great merits of some of the smaller hybrids, I feel that in general hybridisation has all too often been for the sake of larger and showier blooms, at the expense of other qualities that are of more importance in the garden – diversity of form, a distinctive individual character, and year-round beauty and interest of bark and foliage. That the flowers of many of the species are comparatively modest – albeit in many cases of the greatest delicacy and charm – is no disadvantage in a genus that produces so many exceptionally showy plants. A little more restraint, particularly in the planting of the stronger pink and red shades, would be a vast improvement to many gardens.

The principal difficulty in building up a species collection is in obtaining true plants in the first place. There are a couple of smaller

nurseries whose plants are everything one could ask for, but for the rest – not only are many plants grown from open-pollinated seed (surely a somewhat amateurish proceeding for nurserymen who claim to be in the forefront of their profession) but this fact can only be elicited by persistent enquiry. Of course, many of the lepidote species do appear to come true from seed, and one can have a gardenful of *R. leucaspis* or *R. tephropeplum* from one capsule. Some aberrant elepidotes, such as *R. leptothrium*, also usually come true but *arboreum*, *grande* and *irroratum* are quite hopeless for the most part. In my early enthusiasm I raised seedlings of all types, but soon realised that I had achieved only some very vigorous rubbish. This provided both the means and the incentive to try grafting, using the new growth in the summer and covering the scion with a polythene bag. This method has been quite successful with all the large-leaved species, and with the Arboreum, Irroratum, and Taliense series. The Barbatums have been less successful and the Thomsonii series decidedly recalcitrant, often failing after apparently making a union. As I do not like grafted plants I replant them on their sides the following season, covering the union with sandy peat and a stone; roots are often formed from above the graft the same year. The final result is a nice bushy little plant on its own roots, but as it is some time before there is much to see above ground, this method is unlikely to appeal to nurserymen.

I have found most gardeners willing to part with a scion or two of their species, but it helps to have something reasonable to offer in return. It is still possible to obtain wild seed of some species, principally those from the Himalayas, Japan, and Taiwan and the U.S.A. Some Himalayan seed is available commercially (though the results are often surprising), but by far the easiest way of obtaining wild seed is by membership of the American Rhododendron Society; their 1975 list contained over thirty species collected in the wild. Although many are already established garden plants, it is very satisfying to raise them from wild seed, and vigorous young plants of *R. morii*, *R. fulgens* and *R. prunifolium*, for example, are a real asset. Furthermore it is surprising how many new or untried species or distinct forms are still being collected. The new introductions from Taiwan deserve separate discussion, as do some of the deciduous azaleas from Japan commonly, but I think quite erroneously, regarded as minor variants of *R. reticulatum*. My plants are too small to comment on them, and they have yet to encounter an even moderately testing winter.

With so many plants still in their infancy, I am tempted to say that the garden will be worth a visit in ten years' time. There have, however, been some successes. Recent mild winters have enabled some very tender species to flower, and these include *R. ciliicalyx*, *R. rhabdotum*, Cox's *R. inaequale*, and both Cox's and the Glenarn forms of *R. lindleyi*. A plant of *R. hemsleyanum* flowered in 1974, amongst the first to do so in this country. This fine species was introduced into American gardens by Professor Hu from Mount Omei in Szechwan, where it grows in company with *R. hanceanum*. A number of plants of *R. leptothrium*, from seed, have shown what a very attractive garden plant this is where it can be grown, the bronze young foliage being a perfect foil for the small nerium-like flowers; and, of course, numerous smaller species

of the Lapponicum, Glaucophyllum and Boothii series have already shown their worth.

I try to offset the predominance of rhododendrons in the garden by making some other plant, preferably a deciduous tree or shrub, the focus of many of the plantings, and a wide variety of other plants, including some little tried species from Australasia and South America, are being attempted. Ferns have always been a feature of the valley, and are particularly useful for providing contrast of form and texture. The Dicksonias have seeded themselves in recent years, and although they take several years to form a trunk they make fine ground-cover between the larger rhododendrons. Another very handsome species for this purpose is *Woodwardia radicans*, with fronds up to five feet in length, but for general planting our native soft shield fern, in its many varieties, is hard to better. One of the most interesting survivors from earlier days was a thriving colony of the Killarney fern, *Trichomanes speciosum*, inside the grotto. Elsewhere in Cornwall it is recorded only from St Nectan's Kieve near Tintagel. The persistence of such a rare, modest, and exacting species augurs well, perhaps, for the many other plants of a somewhat similar character now being added to the garden.

Rhododendron nigroglandulosum

TOR NITZELIUS

BOTANIC GARDEN, GOTHENBURG

In the years 1922 to 1935 the late Dr Harry Smith (1889-1971) from Uppsala made several journeys to China, where his botanical explorations were carried out in the provinces of Hupeh, Shansi, Shensi, Yunnan and Szechwan. His collections included a large number of both dried and living plants and many proved new to science. The herbarium specimens comprise more than 20,000 numbers, which are kept in the herbaria of Uppsala, Gothenburg, Stockholm, and in the British Museum. Most of the seed material has been raised in Sweden, especially in the nurseries of Magnus Johnson, at Tveta south of Stockholm.

Much of Harry Smith's time of exploration was devoted to the classical plant hunting areas in west and northwest Kangting (Tatsienlu) in Szechuan, but he even extended his travels to districts not visited by Ernest H. Wilson or any other collector before him.

Many of the plants introduced by Dr Harry Smith are of considerable horticultural value, especially for their great hardiness. Among those now successfully grown in Scandinavia are *Syringa tigerstedtii* H.Sm. and a number of new species of *Cotoneaster*, which are being described – or awaiting description – by K. E. Flinck and B. Hylmo of Sweden. Other genera containing new taxa are *Spiraea*, *Rosa* and *Sorbus*.

The rhododendron material has been grown for more than 20 years in the Botanic Garden of Gothenburg and given very interesting results. Species like *R. vernicosum* Franchet, *R. esetulosum* Balf.f. &

Forrest, *R. concinnum* Hemsley, sometimes regarded as rather tender, are represented by perfectly hardy strains from Szechwan.

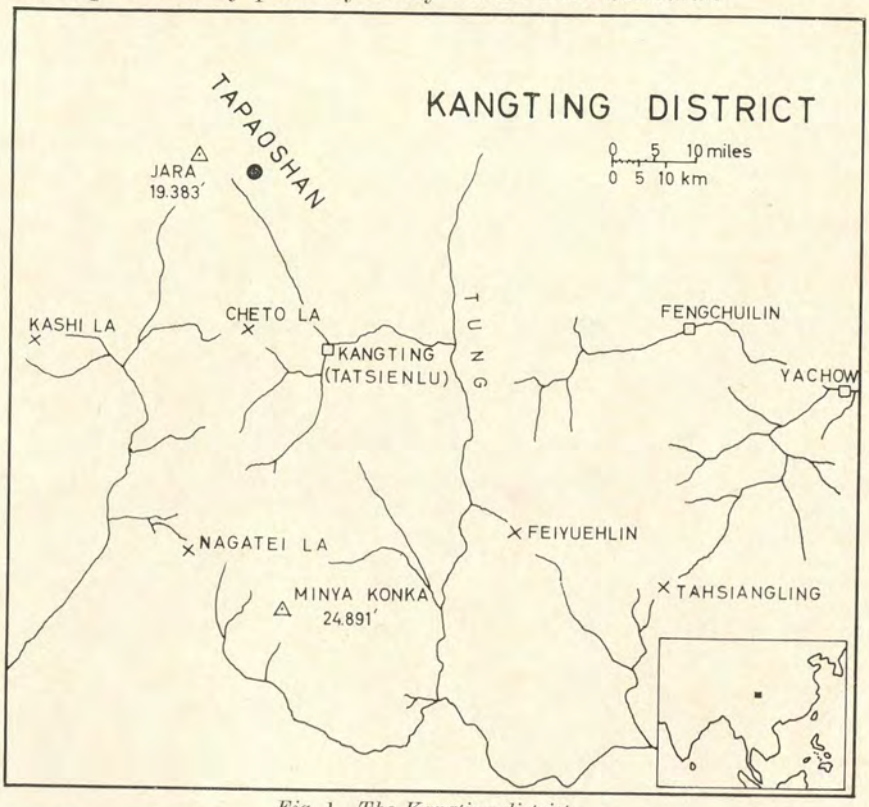


Fig. 1 *The Kangting district.*

Among some still undetermined rhododendrons which Dr Smith collected in 1934 on Tapaoshan, a mountain northwest Kangting, one of the plants representing his seed collection number 13979 flowered for the first time some years ago and made a closer determination possible. It appears to be different from any known taxon and has here been described as a new species.

Rhododendron sectio *Hymenanthes*
Subsectio Taliensia (Tagg) Sleum., *Bot. Jahrb.* 74:550. 1959
Rhododendron nigroglandulosum Nitz. sp. nova
ex affinitate *R. alutaceum* Balf. f. & W.W. Sm.
a quo distat:
ramuli hornotini, folia et petioli glandulis dense obtecti, folia oblanceolata majore, in pagina inferiore floccoso-lanuginosa, flores rosei-flavescentes majores.
Frutex 3-5 m altus (altior?); rami crassi, tomentosi et glandulis atropurpureis et breviter scipitatis dense obtecti; ramuli hornotini virides, vetustiores brunnei; folia sempervirentia, coriacea, oblanceolata, petiolo incluso 140 - 200 mm longa, 35-55 mm lata, apice breviter acuminata, cuspidata, basi cuneata, in pagina superiore atrovirides nitens, dense glandulosis (glandulae atropurpureae, estipitatae, circiter 1/2 mm inter se distantes), nervis impressis in utroque latere 15-20, ruguloso-reticulata, in pagina inferiore indumentum fumosum et floccoso-lanuginosum pili rosulati et ramosi; nervo mediano elevato, basin versus ± glabro, nervis lateralibus

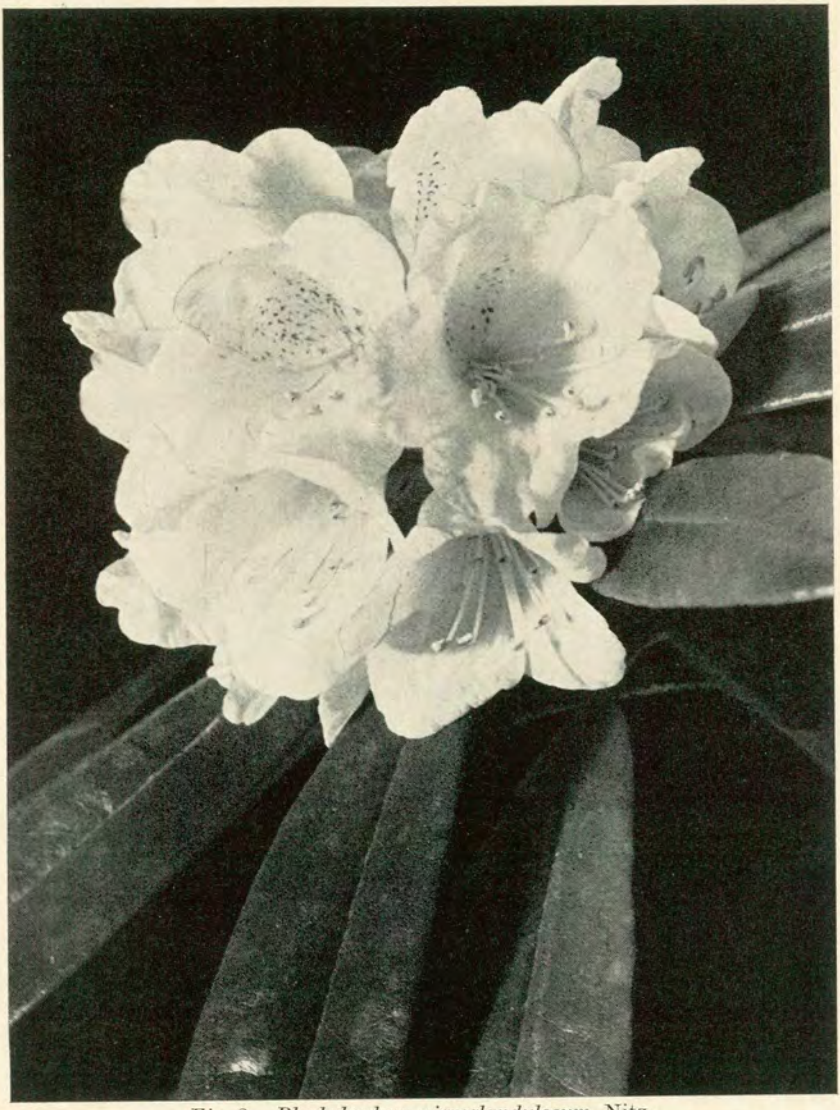


Fig. 2 *Rhododendron nigroglandulosum*, Nitz.

minus elevatis indumento vestitis; petioli 25-30 mm longi, crassi, supra applanati et medio canaliculati, floccoso-tomentosi et glandulosi, glabrescentes; perulae gemmae terminalis late ovales vel obovatae, acuminatae, 15-25 mm longae, brunneae, viscosae, margine ciliatae et glandulosae, pubescentes; bracteae obovatae vel late spathulatae, 10-30 mm longae, roseoviridae, ciliatae et sparse glandulosae, pubescentes. Flores circiter 10 in racemo abbreviato aggregati; rhachis 10-15 mm longa, ± tomentosa; pedicelli 20-30 mm longi, rubrovirides, pubescentes; tubus calycis brevis, inaequaliter cupuliformis, lobi 5, triangulares, pubescentes et sparse glandulosi, callosi; corolla campanulata, 35-40 mm longa, 45-50 mm ampla, initio chermesina, in anthesi rosea-flavescentes, intus maculis roseis ornata, basi leviter gibbosa, lobi corollae 5 rotundati, emarginati, 10-20 mm lati; stamina 10, filamentis 15-20 mm longis, compressis, in quadrante inferiore villosis; ovarium 6 mm longum,

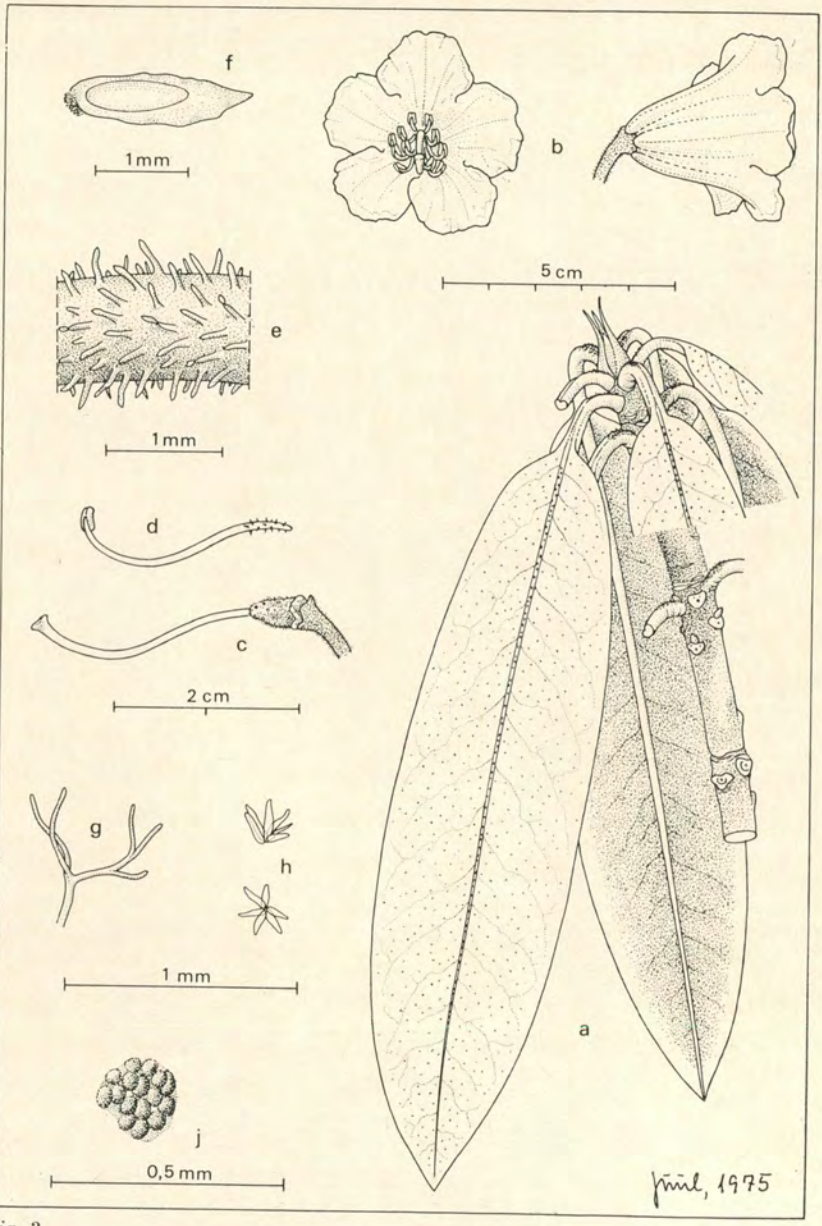


Fig. 3

Rhododendron nigroglandulosum Nitz.

a) Sterile shoot with leaves showing upper glandular and lower indumented surface. b) flowers. c) ovary and style. d) stamen. e) lower villous part of the stamen, enlarged. f) seed. g) a ramiforn, and h) a rosulate hair from the bistrate indumentum of the leaf. j) an unstalked gland from the upper surface of the leaf.

conicum, longitudinaliter leviter sulcatum, lanuginoso-glandulosum; stylus 25-30 mm longus, glaber, stigmate parvo discoides; capsula ovato-cylindracea, 15-20 mm longa et circiter 8 mm diam., 6-locularis, glandulosa; semina oblonga, compressa 1 mm longa, brunnea.

Holotypus: Spec. in Hort. Bot. Gotoburg. cult., leg. T. Nitzelius (GB). Semen ex China: Szechwan, Kangting (Tatsienlu) distr. Tapaoshan 3.500 m ca, December 1934, H. Sm. no 13979.

Rhododendron nigroglandulosum Nitz. sp. nova is an upright 3-5 m high (possibly higher?) shrub with thick branches, which are tomentose and densely covered with dark purple, shortly stalked glands; year-old branches green and the two and three year-old branches brown; leaves evergreen, coriaceous, oblanceolate 140-200 mm long (including the petioles), 35-55 mm broad, apex shortly acuminate; base cuneate; upper surface of the leaf dark green, glossy, densely glandular, the glands dark purple, unstalked, 1/2 mm apart, midrib and primary veins 15-20 on each side impressed, rugulose-reticulate; under surface clad with a loosely woolly, tawny, bistrate indumentum consisting of an upper layer of ramiform and a lower layer of rosulate hairs, midrib prominent, slightly hairy and towards the base ± glabrous, primary veins slightly raised, concealed; petioles 25-30 mm long, thick, flattish above and grooved, at first floccose-tomentose, glandular; budscales of terminal buds broadly ovate or obovate, acuminate, 15-25 mm long, brown, viscous, ciliolate and glandular, pubescent on both surfaces; bracts obovate or broadly spathulate, 10-30 mm long, pinkish green, ciliolate and sparingly glandular, pubescent. Flowers about 10 in a short racemose umbel; rhachis 10-15 mm long, more or less tomentose; pedicels 20-30 mm long, reddish green, pubescent; calyx small, unequally cupuliform, with 5 thick, triangular lobes, pubescent and sparingly glandular; corolla campanulate, 35-40 mm long and 45-50 mm broad, at first carmine, later yellowish pink, more or less spotted carmine within, at the base slightly 5-pouched; lobes 5, 10-20 mm long and 2 mm broad, rounded and emarginate; stamens 10, filaments 15-20 mm long, flattened, and in lower fourth villous; ovary 6 mm long, conical, longitudinally slightly grooved, lanuginose-glandular, style slender, 20-30 mm long, glabrous, with a small, slightly discoid stigma; capsule ovate-cylindrical, 15-20 mm long and about 8 mm broad, 6-locular; glandular; seeds oblong, flat, brown, 2 mm long.

Rhododendron nigroglandulosum is reminiscent in its leaf form of *R. alutaceum* Balf. f. & W.W. Sm. and *R. adenophorum* Balf. f. & W.W. Sm., but it has a more loose tawny indumentum like *R. rufum* Batal. The leaves are, however, larger and glossy, which gives the species a certain advantage. The flowers are fairly large, initially carmine but soon changing to light pink with a slight yellowish tint. It is a hardy and promising species particularly for northern lands. Like several others of the rhododendrons introduced by Dr Harry Smith from the Szechwan province it has, with regard to its hardiness, a particular significance for the breeder.

Notes on a Cold Rhododendron House

H. A. POTTS

When we came to live in north Northumberland two years ago we were fortunate enough to take over an established woodland garden where rhododendrons flourish, but the climate is severe enough to make growing the more tender sorts out of doors a waste of time. At Howick only about ten miles away *Rhododendrons crassum* and 'Princess Alice' thrive out of doors and flower with the greatest freedom, but that remarkable garden is very close to the sea and has a much milder climate. Here we must contend with very low temperatures in the winter and even more damaging late spring frosts.

As I have for some years been particularly fond of the Maddenii series, it was obviously a case of finding a suitable greenhouse and I was encouraged to start from scratch by the need to repair a scar on

an old red brick wall near the house where once a stove house had stood. Experience with an unheated rhododendron house in the milder climate of north Wales has led me to think firstly that it is necessary in such conditions to keep plants dry from November to February if they are not to damp off, and secondly that such a house is not a particularly agreeable place to visit during a large part of the winter with a chill and musty feel to it. I was anxious to avoid heat if possible, as being expensive and not strictly necessary and the alternative seemed to be double glazing which I cannot recall having seen elsewhere in a rhododendron house, though no doubt other people have reached the same conclusion. Richardsons of Darlington made light of any problems involved and in a surprisingly short time the new house was ready.

I have found double glazing to be an outstanding success; it is true that the two winters which we have seen since the house was completed have not tested it very far, but the way in which the double glazing insulates the interior and conserves what heat there is from the sun, is remarkable and many visitors require convincing that the house is not heated. So far it has been consistently welcoming through the winter months – one must still be careful not to over water in the dormant season, but there is none of the chill air usually found in an unheated house in January and February. So far as I can see at this stage flower is two to three weeks earlier than in a house without double glazing.

In my previous rhododendron house most of the plants were in pots so that they could be brought indoors when in flower. However, the labour involved as plants and pots got bigger and the wish to see the plants at their best, led me to lay out three-quarters of the new house as permanent planting, the remaining quarter being paved to accommodate plants in pots – principally the usual hybrids, so unfailing in flower and scent and also *R. polyandrum* whose scent I particularly like. These are planted out after flowering and brought in and repotted in October. The larger area is planted with a wide but by no means complete selection of the Maddenii series and its hybrids. It is very satisfactory to see plants which have grown well enough in pots for years but become leggy, bursting into new growth all up the stems when permanently planted in the greenhouse.

There were a number of large old plants of 'Fragrantissimum' and 'Lady Alice Fitzwilliam' here when we arrived, and these make a particularly good show in April; and their wavering habit is very satisfactory when they can grow through other plants. Also here was an old plant of *R. rhabdotum* which is now about seven feet high and particularly appreciates the change from being grown in a pot. Although *rhabdotum* is not scented during the day, I have noticed that it has a definite and rather delicious smell of peardrops at night. Although undoubtedly one of the most tender of the Maddenii series and generally thought unsuitable out of doors even in the mildest gardens, I have never lost a flower bud of *rhabdotum* in the greenhouse even after 10° of frost in my previous house in Wales. The flowers are, I think, astonishing, bright green with a dark red stripe before they open, fading to a chamois leather colour with a cherry red stripe as the flowers open.

Scent is for me a major attraction of the Maddenii series and it is a disappointment that the beautiful greenish yellow *R. dalhousiae* does not smell at all although the flowers are so graceful that I always look forward to its flowering. *R. burmanicum* is another yellow rhododendron which has no scent, but it flowers so well here with greenish yellow trusses fading to soft clear yellow, that I think it worthy of a place – the flowers open over a long period which is another virtue. *R. taggianum* and *R. lindleyi* have to my mind perhaps the most delicious scent of any flower, a clear sweet lemon smell and both are outstanding in flower. I have a plant of *R. lindleyi* now about five feet high, which I hope will make a spectacular centrepiece for the middle of the house in due course. *R. nuttallii* and *R. sinonuttallii* both grow well although I find *nuttallii*'s beautiful purple young growth is very prone to scorching if the house should get slightly too hot; *sinonuttallii* does not seem to suffer from this problem at all and I also find that it flowers quite freely, whereas my 10-year-old plant of *nuttallii* has only produced one truss of flower so far. The variety of leaf and beauty of bark found in the Maddenii series means that the house is always interesting and there is no need to introduce other species with their attendant problems for year round interest. However, I am clothing the wall with various jasmines including the yellow, scented *J. humile* and have, somewhat against my better judgement, allowed my wife to introduce a plant of *Datura suaveolens* which flowers well in late summer, but does not appreciate its winter conditions. No doubt a cold winter will in due course settle the argument.

Rhododendron enthusiasts will be familiar with the large and splendid greenhouse in the Savill Garden and the Temperate House at Kew, both of which are heated, but I hope these notes may encourage those living in colder parts of the country to devote a house to the very rewarding Maddenii series.

Rhododendron Notes: *Rhododendron lindleyi*

On the west wall of my house I have grown for some years a plant of *R. lindleyi*, and this rhododendron is now about 9 feet tall. Every year it is covered in bloom, no matter what weather conditions have prevailed during the previous 12 months, although buds do get damaged sometimes by late frosts. The plant is one of the Ludlow and Sherriff forms. However, I do not know the exact collector's number, although from what little information I have in my possession it would appear that the original seed came from the Ludlow and Sherriff expeditions of 1937 and 1938 in Bhutan and south-east Tibet.

In spite of the fact that my garden here in Ascot can be said to be a fairly cold one – I often refer to it as Arctic Ascot – the plant appears to be reasonably hardy against my west wall. At the side of *lindleyi* is a plant of the old hybrid 'Lady Alice Fitzwilliam', and this rhododendron is also very floriferous. In the past, in order to assist in the plant's establishment, some protective covering was given to the *lindleyi*

Fig. 4

Rhododendron lindleyi

during the worst months of the winter, but this is not done nowadays. 'Lady Alice Fitzwilliam' has never received any cover, at any time, although some of the branches of a tall *Cytisus battandieri* are over this plant, and also over part of the *lindleyi*, and I suppose that this does afford a bit of protection. Some people might say that this hybrid is slightly hardier than *R. lindleyi*, but I personally would not guarantee this. Of course it is realised that we have had a series of mild winters since the very testing one of 1962/63, and both these rhododendrons were planted after those years. However, this garden has of recent years experienced some nights with frosts of 20°F. Apart from their apparent hardiness against my west wall and their definite floriferousness the fragrance of these two plants is always superb.

This garden is fairly sheltered, as it is surrounded by mature trees, mainly oaks and birches, with some of these in the garden itself, and it is situated in the southern extremity of the old Windsor forest. It is only 2 acres in extent, and in it are about 90 different species of rhododendron and a fairly large number of hybrids, amongst which are some of the large leaf types such as *arizelum*, *basilicum*, *falconeri*, *hodgsonii*, *fictolacteum*, *macabeanum*, *mollyanum*, and the hybrid 'Fortune'. There is also a representative planting of camellias and magnolias. Also amongst other shrubs and trees are callistemons, embothriums, a few young telopeas, *Eucalyptus*, *Catalpa*, *Paulownia*, *Davidia involucrata*, and on the south wall of the house a young *Sophora tetraptera*, and *Acacia dealbata*. It is interesting to note that the callistemons, planted on the south-east corner of the house and garage, came through the hard winter of 1962/63 without being killed, and they flower well most years. Due to this last very mild winter of 1974/75 the *Acacia dealbata* flowered quite well during late February and March.

In conclusion it would seem to me that the Ludlow and Sherriff forms of *R. lindleyi* are probably hardier than many gardeners realise, and Mr John Basford of Brodick is firmly of the same opinion. Let us hope that we are right in this contention.

Ascot, Berkshire. PHILIP URLWIN-SMITH.

Drainage for Dwarf Rhododendrons

COLLINGWOOD INGRAM

Planted in a partly sandy medium and slightly raised beds, most of my dwarf rhododendrons belonging to the Lapponicum series have been unharmed by the frosts and snows of nearly forty Kentish winters. But for many of them, the continuously saturated condition of the soil during the unusually wet winter of 1974-5 has proved very much to their distaste.

On noticing that some of my favourite varieties were beginning to show signs of distress, I endeavoured to save their lives by reducing the water content of the ground they were growing in. This I did by carefully mining under their root system with a trowel; I then filled the cavity thus formed with a very coarse grit known locally as "crushed

beach". In most cases, this appears to have had the desired effect, and I am hoping that in due course the plants so treated may regain their former health.

The first indication of their distress has always been a change in the colour of their foliage. Where it has previously been of a bluish-grey colour in almost every case it has turned to an unhealthy purplish brown shade.

Seemingly the Lapponicum series can withstand periods of drought but cannot tolerate any continuous water-logging of the soil during their dormant season.

Diseases of Rhododendrons and Camellias

AUDREY V. BROOKS
(*Plant Pathologist, R.H.S. Garden, Wisley*)

Many of the queries received by the Plant Pathology Department at Wisley concern troubles affecting rhododendrons and camellias. These are of three main types which can be grouped as 1. Superficial Growths, 2. Disorders and 3. Diseases. An article on the first two groups appeared in *Rhododendrons* 1974. In this article, therefore, only diseases are described and recommendations given for their prevention or control. Most of these diseases are specific to the type of host and those affecting rhododendrons will not harm camellias and vice versa. These will be dealt with in order, but first is described a serious trouble which can kill both types of shrubs.

HONEY FUNGUS

The root parasite known as honey fungus, *Armillariella* (syn. *Armillaria*) *mellea* can attack almost any type of plant but is most commonly found on trees and shrubs and frequently causes the rapid death of rhododendrons. It can also kill camellias but is less common on them. It is mainly confined to the underground parts of plants and lives commonly as a saprophyte on dead tree stumps and other woody debris. From there it spreads through the soil in the form of blackish root-like cords called rhizomorphs. When the tips of these structures make contact with healthy roots, they penetrate the tissues. White fan-shaped masses of fungal threads then develop beneath the bark and spread to the collar of the plant and the roots decay.

Unfortunately a plant may have been infected for some time before any noticeable symptoms appear. The first obvious sign of trouble in a rhododendron is desiccation of the leaves which hang down but do not fall. The leaves are not necessarily discolored and the shoots may appear to be still alive but an affected shrub will probably be completely dead within a week from the onset of these symptoms. Somewhat similar symptoms may appear on a diseased camellia but an affected shrub is more likely to show a progressive but rapid dieback of the shoots.

As infected rhododendrons and camellias die so rapidly no treatment can usually be carried out to save them and dead and dying plants should be removed together with as many of the roots as possible. The soil should be sterilized or changed before replanting or a proprietary product specially formulated for the control of honey fungus should be used.

DISEASES OF RHODODENDRONS

(i) *Flowers affected*

(a) *Bud blast.* This disease attacks the flower buds of many evergreen *Rhododendron* species and hybrids particularly in southern England and can cause a drastic reduction in flowering. It is caused by the fungus *Pycnostysanus azaleae* but it is mainly spread by the rhododendron leaf-hopper *Graphocephala coccinea.* Infection of the buds is believed to occur through the wounds caused by this insect pest when it lays its eggs in the bud scales.

The first symptoms appear between October and December when affected buds turn grey or brown. In the following spring when the buds are dead they are dark brown in colour but look black because they are covered with short bristle-like structures each bearing a "pin-head" of fungus spores (Fig. 1). The buds remain firm and do not rot but remain on the bushes in this condition for two or three years.

On small bushes it is often possible to control the disease by prompt removal of infected buds. A better method of control, however, is to spray against the leaf-hoppers using an insecticide two or three times at fortnightly intervals from late July to September. BHC or malathion can be used, but the latter must be applied more frequently as

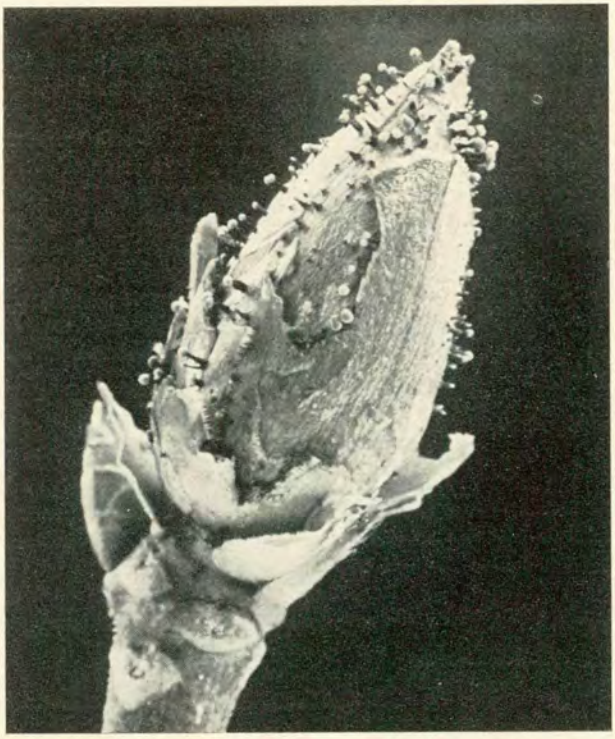


Fig. 5. 1

Bud-blast on a rhododendron, showing bristle-like fruiting bodies of the fungus.

it is less persistent. This treatment should reduce leaf-hopper populations sufficiently to limit egg-laying, but the pests are difficult to eradicate completely as re-invasion from untreated areas can be fairly rapid.

(b) *Petal blight.* The fungus *Ovulinia azaleae* causes petal blight of azaleas. It is encouraged by mild humid weather and in these conditions many spores are produced which are spread by insects and wind. This disease was first recorded in 1950 in Great Britain and since then has caused serious trouble in a few localities including the trials of evergreen azaleas on Battleston Hill at Wisley. It has also been found on deciduous azaleas and hardy hybrid rhododendrons.

Small spots develop on affected petals and these are white on coloured flowers and pale brown on white blooms. The spots increase in size and take on a watersoaked appearance and eventually the flowers collapse in wet slimy masses. Only three days may elapse between the onset of the disease and the complete collapse of the flowers so that the flowering period is severely curtailed. Affected flowers do not fall but hang on the bushes as trusses of brown withered blooms which look as if they have been frosted. They remain in this condition for weeks or even months and some can still be found the following spring.

Control of the disease may be difficult as the best method is to remove and burn infected flowers as soon as they are seen which is not feasible where many plants are affected. It has been found, however, that a good control of the disease can be achieved by spraying with the fungicide benomyl at about 7 to 14-day intervals in the spring, starting as soon as the flower buds begin to show colour and repeating until just before the flowers open.

(ii) *Leaves affected*

(a) *Leaf spot.* This is usually caused by the fungus *Glomerella cingulata* (syn. *Gloeosporium rhododendri*) but other fungi can also cause spotting of the leaves. The spots are round and purple at first but later become brown and more irregular in shape and they may develop at any time of the year.

If only a few leaves are diseased they should be removed and burned. It is also advisable to destroy leaves showing brown patches as the spore-producing structures of the fungus will have developed on these. In severe cases the bushes should be sprayed three times at fortnightly intervals with captan or zineb, but further applications should be given if leaf spots start to develop later in the season on young foliage. Any spraying should be done when the shrubs are not actually in flower.

Leaf spotting fungi are more likely to affect a shrub lacking in vigour. Where shrubs are severely affected every effort should be made to encourage vigour in them by good cultural treatment including the use of a foliar feed.

(b) *Azalea gall.* At one time this disease was really only troublesome on indoor pot-grown plants of *Rhododendron simsii*, the popular Indian azalea obtained from florists. In recent years, however, there has been a considerable increase in the incidence of azalea gall on outdoor evergreen small-leaved rhododendrons.

The disease is caused by the fungus *Exobasidium vaccinii*. Irregularly shaped galls varying in size from that of a pea to a small plum develop on the leaves or flowers, from late May onwards on outdoor plants or all the year round under glass. The fleshy gall which practically replaces the affected leaf or flower, is at first reddish but soon becomes white owing to the formation of a floury bloom which is a superficial coating of fungus spores (Fig. 2). These spores, which are insect- or air-borne, spread the disease from infected to healthy plants. On germination of the spore, the fungus enters the tissue of the host, but it can then have a long incubation period within the plant and the symptoms may not appear until several months after infection.

Where only a few leaves are infected, removal of the galls before they turn white may be sufficient to control the disease. In more severe

attacks the bushes should be sprayed with a copper fungicide or zineb as soon as the disease is seen. The shrubs should then be sprayed the following season before the new leaves appear.

(c) *Rust.* Rhododendron rust, caused by the fungus *Chrysomyxa rhododendri* is a fairly localised disease but it can be troublesome in some gardens particularly in the south west. The upper leaf surfaces become discolored and throughout the summer fungus pustules develop

Fig. 5. 2 Galling of azalea leaves caused by the fungus *Exobasidium vaccinii.*

on the undersides of the leaves and these produce orange and later, brownish spores. The fungus lives within affected leaves so that they remain infected until they fall and the disease appears every season.

If only a few leaves are affected it should be possible to eliminate the disease by removing them as soon as the first symptoms are seen and before many spores are produced to spread the trouble to still healthy leaves. When many bushes are affected they should be sprayed with maneb, thiram or zineb but these fungicides do not always give a good control of the disease.

(iii) *Shoots affected*

Silver leaf. Although the silver leaf fungus *Stereum purpureum* is usually associated with plums, it can also cause a dieback of rhododendrons. The fungus commonly lives as a saprophyte on dead wood and produces air-borne spores which can only enter living shoots through wounds. Fungal threads develop within the infected branch and a toxin is produced which passes upwards in the sap and causes death of the shoots above the point of entry.

In most trees and shrubs diseased branches bear silvered foliage

before they die back, but this discoloration of the leaves does not occur in rhododendrons. A diseased branch will merely die back and the only symptom which will indicate that it has been affected by silver leaf is the presence of a brown or purplish stain in the inner tissues. This, of course, can only be seen when the dead branch is cut off, and it is more easily noticed if the cross-section of the cut branch is moistened. When cutting out a dead shoot in a rhododendron, the cut surface should be examined to see if it shows any staining and, if so, the branch should be cut back to six inches below the point where the stain ceases. The wound should be coated with a good protective paint, and if the shrub is then well cared for no further dieback should occur.

If a dead branch which has been affected by silver leaf is not cut out, fruiting bodies of the fungus will eventually develop on it. These structures, which may be flat or bracket-shaped and overlapping each other like tiles, are at first purple especially when damp, but become brownish with age and when dry. From these fructifications numerous spores are released and these spread the disease particularly in damp weather. It is advisable therefore, to cut out dead branches

Fig. 5. 3

A camellia affected by Yellow Mottle Virus, showing irregular blotching of leaves.

before the fruiting bodies develop, and all wounds on healthy plants should be covered with a wound paint so as to prevent further infections.

DISEASES OF CAMELLIAS

Camellias are not very prone to diseases in this country, and apart from honey fungus which has already been mentioned, only the three following diseases can be troublesome and one of these is rare.

(i) *Camellia yellow mottle virus.* The symptoms produced by this virus can take a number of very different forms. Sometimes the leaves are only irregularly blotched or speckled with yellow or white (Fig. 3), while in other instances whole branches may bear completely white leaves. The symptoms are inclined to vary from branch to branch on an affected bush and some branches may bear perfectly normal dark green leaves.

This disease is not considered to be very serious as it does not appear to affect the flowering or vigour of an infected plant. The natural mode of spread of the virus is not known and the disease does not seem to spread to adjacent camellias or at least only very slowly.

Once a camellia has become affected by this disease there is no method of curing it. The virus is present in all parts of a diseased plant whether or not the leaves are showing symptoms. It is not advisable therefore, to propagate from a camellia showing symptoms of this disease.

(ii) *Leaf spot.* This disease which is caused by the fungus *Pestalotia guepini* shows first as yellowish patches on the leaves. Later these turn brown then grey and bear on their surface pin-point size black dots which are the clusters of fungus spores (Fig. 4).

Fig. 5. 4 Camellia leaf spot.

Leaf spot can occur on mature plants which are lacking in vigour but is only likely to be serious on cuttings and young plants in glasshouses and frames. It is often possible to cut out the affected part of a leaf, but in severe cases all diseased leaves should be removed. The plant should then be sprayed with a copper fungicide.

(iii) *Camellia gall.* A very rare disease of camellias in this country but one which is most unsightly is camellia gall caused by the fungus *Exobasidium camelliae*. This disease is very similar to azalea gall mentioned earlier, but the galls produced by it are very large and all the parts of an infected flower can be completely converted into an irregular shaped white fleshy gall (Fig. 5).

As only one or two galls are likely to appear on a diseased plant no other control measures should be needed once these have been removed and burned.

Fig. 5. 5

A camellia flower completely distorted by the gall fungus *Exobasidium camelliae.*

Although several of the diseases mentioned above are troublesome on well grown and vigorous bushes and can only be controlled by the use of chemicals, others are more likely to occur on neglected shrubs. Most of the troubles which do occur on rhododendrons and camellias are not in fact due to parasitic organisms but are caused by unsuitable cultural conditions. The best method of keeping shrubs healthy and vigorous, therefore, is to see that they are fed, mulched and watered and that dead leaves, flower buds or shoots are removed promptly. If trouble occurs and the cause can be identified, the shrub should be sprayed at the right time with the correct fungicide applied according to the manufacturer's instructions. Should trouble persist, however, advice should be sought from a specialist at Wisley or elsewhere.

Notes on rhododendrons in Langtang and Annapurna Sanctuary, Nepal

C. D. SAYERS

I have been three times now to the Nepal Himalaya, first to Langtang in the monsoon months of 1965 (for a detailed account see Schilling, A. D. 1969. The Langtang Valley of Nepal. *J. Roy. hort. Soc.* Vol. 94, pp. 222-232), and in 1974 and 1975 as leader of Cook's Adventure Club Spring Treks to Langtang and Annapurna Sanctuary respectively.

Langtang is a dry central valley running approximately east-west leading to the Nepal-Tibet border and some 30 miles north of Kathmandu. In July 1965 numerous plants of *Rhododendron arboreum* were recorded on the approach march at altitudes up to around 8,500ft, but all had long finished flowering. They occurred mostly as isolated and rather stunted trees between areas of cultivated terraces on the steep hillsides and only in one small place were there sufficient plants growing together to call them part of a remnant forest, below Ghore Tabele. At 8,000ft, above the village of Bhanjyanggaon, the hillside was substantially covered with flowering *R. lepidotum* growing about 7 ft. tall. In oak forest around 9,000ft. were a few *R. barbatum*, but not in flower.

Our next rhododendrons occurred substantially at around 12,000ft, beyond the village of Langtang. *R. anthopogon*, a species only knee-high and producing occasional small dirty white flowers. Of considerably more interest was the great carpet of *Cassiope fastigiata* around the dairy at the summer yak pasture of Kyangjin Ghyang, the small white pendulous flowers borne in such profusion as to make the old moraines appear as though dusted with fresh snow. Higher, around 13,000ft, *R. setosum* carpeted much of the valley floor, truly a mass of red flowers and a wonderful spectacle. The dwarf shrubs gave some protection from grazing yaks to more fragile plants such as *Fritillaria*, *Cypripedium* and *Primula*.

My second visit to Langtang, in April rather than monsoon July, was a complete contrast. The winter of 1973/74 had been relatively dry and the *R. arboreum* were suffering from heat and drought. Very few showed attempts to flower, and at best only managed a few clusters of rather mangy blossoms. Not only was this second visit during the dry season, but in the intervening 9 years local population pressure had increased. In the lower Langtang Valley a large settlement of Tibetan refugees were actively converting the remaining forest to agriculture and increased grazing at the dairy was creating the early signs of erosion. Patches of bare soil in the meadows was drifting in the wind and turf was being undercut much as it occurs through sheep rubbing in upland moorland in Britain. We saw very poor *R. arboreum*, one rather good *R. campanulatum* and some poor *R. barbatum* and of course we were too early for the monsoon flowering dwarf alpine rhododendrons. However, there were many compensations, for the

meadows above Langtang village were sprinkled with the early flowering *Iris kumaonensis* and *Primula denticulata* and lower down the early flowering *Elaeagnus*, *Viburnum*, *Bauhinia* and other gems, plus a super-abundance of epiphytic orchids.

The country to the south of Annapurna is much wetter, although further west than Langtang. In Langtang we climbed to 16,000ft on the south-facing slopes and were well below the snow line. Annapurna Sanctuary is at about 12,000ft and we had deep snow in April this year. The Sanctuary is an amphitheatre surrounded by 7 peaks over 21,000ft and its only means of access is by going up the Modi Khola. Judging from the remaining evidence of the previous year's growth this confined valley must have a very fine alpine meadow flora, with the end of May and early June the best time to visit it. Tall stems of *Meconopsis paniculata* with their empty seed capsules still remaining stood upright in the snow. On rock outcrops less deeply covered with snow one could feel beneath one's boots a dwarf rhododendron and upon excavation we guessed it to be *R. anthopogon*. On the lower slopes just before the base camp from which Machapuchare was climbed (22,942ft), *R. lepidotum* stood proud of the snow, not yet in flower, and where the snow had melted we were treated to many, many, enormous rosettes of *Meconopsis paniculata*, often beneath flowering shrubs of *Viburnum grandiflorum*. On the east bank of the Modi river, where access is very difficult, a superb forest of *Rhododendron barbatum* and *Betula utilis* covered the steep lower slopes. The beauty of this association is hard to describe for the red flowers of the rhododendron fairly glow and, when seen amongst the papery, flaking stems of the birch above a ground cover of snow they create a very compelling plant experience.

Earlier in the trek, when approaching the village of Ghorapani (c.8,000ft) before crossing the Deorali Pass (10,000ft) leading to the Modi Khola we crossed several small rivers, all in deep valleys. The surrounding hillsides were varying shades of pink and red, a mass of *Rhododendron arboreum*. The magnitude of this splendid spectacle was at first difficult to accept, but after three days or so of walking through this most flamboyant of all forests we became accustomed to the splendour and observed critically the varying colour forms present, from dark red to deep pink, pale pink to almost pure white. In many places the dominant undershrub was *Daphne bholua* var. *glaucilis*, a bare-leaved suckering shrub with clusters of pale flushed pink coloured flowers from which emanated an overpoweringly sweet perfume. Also common was *Sarcococca hookerana*, another deliciously scented shrub, but its fragrance was lost to the strength of the *Daphne*. Among the pink hillsides were drifts of white which we at first took to be *R. campanulatum*, but the glasses soon showed it to be *Magnolia campbellii*. One of the best specimens came later, a large open crowned tree some 70ft tall with many creamy white flowers framing a distant view of Dhaulagiri Himal (26,795ft) and on its branches were *Pleione humilis* in flower.

The Deorali Pass is a narrow ridge covered mainly with oak and bamboo forest, with some *Abies spectabilis* in places, and presented us with a wonderland of twisted stems of *R. barbatum* trees, their red

flowers almost luminescent in the darkness of the forest. It was a memorable day's trek, and in moist situations there were drifts of lavender *Primula edgeworthii* to add a finishing touch. At one point, at the edge of some bamboo forest, we came across a pure stand of *R. campanulatum*, but we were about two weeks too early for the flowers.

Such a description of the spring flora to the south of Annapurna may seem exuberant, but the rhododendron forests of Nepal must surely be among the most spectacular of the world's vegetation, certainly in those regions where the ordinary plantsman can visit without difficulty. The two areas described presented great contrasts in their spring flora, Annapurna memorably spectacular with *R. arboreum* and *M. campbellii* but almost no alpine plants, Langtang poor in rhododendrons but with many more different species to be found. The monsoon flora of Langtang is a veritable valley of flowers but with only rare glimpses of the surrounding peaks through the rain clouds, while Annapurna Sanctuary holds promise of good alpine flowers and, more certainly, a blood bath of leeches through the very wet approach to the Modi Khola!

Camellias in the west Midlands

H. JOHN TOOBY

Our farmhouse is situated about 4 miles west of Worcester, and the garden is based on the stiff alkaline Keuper Marl. My wife and I had greatly admired the rhododendrons, azaleas and camellias which are the glory of the great gardens of the south of England every spring. Could we grow them here in our conditions? A selection of rhododendrons and azaleas was planted in the late 40's and early 50's together with our first four camellias. One of them never looked happy and died in its first winter. The other three succeeded beyond our expectations and, although incorrectly labelled, continue to flourish. So when we started a nursery in the early 1960's it seemed natural to include camellias.

As we were so far north of traditional camellia country our first move was to plant 76 cultivars in prepared beds without any special protection so as to sort out the ones that were really hardy. Well this was 1962 and we soon had our answer. During the early months of 1963, the temperature dropped to 5°F. and remained at very low levels for about 10 weeks. All the younger, one-year-old plants were wiped out and the number of varieties was slashed to 28. The survivors were brought together into a smaller bed and propagation was maintained at lower levels than originally planned. Other cultivars were brought in from this country and the U.S.A. and the more promising have been planted out from time to time. Where the soil is unduly shallow, establishment has been poor except where additional topsoil has been brought in from outside. One end of the smaller bed referred to above overlapped the site of a hop-kiln which had been burnt down in the 30's, and plenty of mortar rubble was still there. The camellias stood up to these conditions better than the *Erica carnea* cultivars planted as ground cover beneath them. They responded, however, to applications of Sequestrene, fritted trace elements and epsom salts so I imagine they are pretty close to their upper limit of pH.

We find that well-fed plants stand up better to cold weather and are more vigorous and free-flowering. We apply fish manure (8-4-4) annually in the spring, as well as periodical (annual would probably be better) mulches of peat and hop-waste. We have found that camellias resent deep planting and some of our early losses may have been due to this. Similarly spoil (largely subsoil) from a trench piled two to three inches over the roots has nearly killed two plants of 'Donation'.

Last spring, we had flowers here from Christmas to July and many cultivars gave a good display for four weeks or more. This compares well with rhododendrons and azaleas which usually manage only two or three weeks. Moreover the camellia flowers are somewhat more resistant to frost than most rhododendrons. Most cultivars reach their peak in the month of April, and at this time of year they are, I think, unrivalled. They do extremely well on a north wall and are admirably suited to the small modern town garden. Their main disadvantage is that most varieties of *C. japonica* have flowers which are subject to wind damage. This is much less in the even more free-flowering *C.* ×

williamsii varieties and as these and other related hybrids become available in a greater range of colours and forms, the popularity of the camellia will assuredly grow.

Of the cultivars which survived the 1962/63 winter, 'Apollo' is outstanding and should be the first choice for a cold garden. The bushes here give a good display of large bright red flowers for a month or more every year. The new American variety 'Guilio Nuccio' seems to be another tough one and is succeeding well here in a poor position. Other reds which have done well are: 'Margherita Coleoni', 'Mercury', 'C. M. Hovey', 'Hana Tachibana' (the latest of all which flowers here in May), 'Julia Drayton' (known in the U.S.A. as 'Mathotiana'), 'Lady de Saumarez' and a cultivar labelled 'Duchesse de Caze' I think must be 'Eximea'. 'Dobrei' and 'Alexander Hunter' are also excellent, but probably not quite so hardy as young plants were killed in 1963, though a 10 year old 'Dobrei', on a north wall, was untouched. 'Inspiration' is outstanding among the darker pinks. In spite of its reputed *reticulata* parentage one young plant out of three survived the 1963 winter. It flowers abundantly for six weeks or more, usually starts in February or March, and makes a good splash of colour. Moreover it is self-grooming so dead-heading is not necessary. 'Angela Cocchi Pink' is very vigorous and a bit slow to start flowering freely. For the last two years, it has probably been the most spectacular of all. Usually three rows of petals, standing somewhat apart, surround a central column of golden stamens. 'Gloire de Nantes' has a long flowering season often starting in January, but it is rather slow-growing and requires dead-heading. 'Latifolia' is tough and attractive but has a short season. 'Elegans' is rather subject to weather damage, but its seedlings from America, 'Sunset Glory', shows promise of being more resistant. 'Lanarth' seems the best single, though rather slow-growing.

The paler colours in *C. japonica* are all liable in various degrees to weather damage. 'Pink Perfection' ('Frau Minna Seidel') seems as resistant as any and its small formal double flowers are very charming. 'General Lamorciere' flowers over a long period. It is good as a cut flower as are 'Dr Tinsley', 'Magnoliaeflora' and 'Peach Blossom'. As a garden plant however 'Donation' is streets ahead and makes a magnificent display for six weeks or so. Other hybrids are now becoming available from Australia, New Zealand and the U.S.A. as well as this country, so we have the prospect of a range of cultivars for the future. 'Dainty Dale' with blush pink paeony-form flowers and a vigorous free-flowering habit is one of the more promising. The best all-round white that we have struck is 'Mme Victor de Bisschop', a hardy vigorous plant which produces semi-double to rose-form double flowers of a sparkling pure white, over a long period. They are easily browned in wet or windy weather – even by rubbing a nearby leaf – but this cultivar is self-grooming. Of single whites we find that 'Snow Goose' ('Alba Simplex') with occasional pink flecks makes a more compact plant than 'White Swan' ('Yukimi Guruma'). 'White Swan' is a Higo camellia with prominent stamens and like others of this type, tends to have them damaged while the flowers are still in bud, even in quite moderate cold. We think we have now found the true 'Devonia' and hope this will be better than either.

'Tricolor' and 'Sabina' are good reliable striped varieties but the former is rather slow growing and the latter somewhat lacking in colour. We think we now have the true 'Contessa Lavinia Maggi' and hope this will be better than others we have received under this name.

We are trying out a number of other cultivars from various sources and expect to learn a lot more in the next ten years. Meanwhile, I have attempted a classification of cultivars in degrees of toughness which follows. (P) indicates a provisional grading.

CLASS 1.

Cultivars which establish and flower well in the open, having flowers which stand up well to bad weather.

Angela Cocchi Pink	Guilio Nuccio (P)	Marriottii Rubra
Apollo	Hana Tachibana	Mrs Charles Cobb (P)
C. M. Hovey	Inspiration	Margherita Coleoni
Dainty Dale (P)	Julia Drayton (P)	Mercury
Donation	Jupiter (P)	Sunset Glory (P)
Gloire de Nantes	Lady Campbell	Tricolor and sports
Governor Earl Warren (P)	Latifolia Lanarth	

CLASS 2.

Cultivars which establish and flower well in the open, but having flowers which are liable to browning in bad weather.

Betty Sheffield and sports (P)	J. C. Williams (P)	Mme Martin Cachet
C. M. Wilson	King's Ransom (P)	Peach Blossom
Dr Tinsley (P)	Magnoliaeflora	Pink Perfection (Frau Minna Seidel)
Elegans	Marguerite Rose (P)	
General Lamorciere	Mary Christian (P)	Sabina
Imbricata Alba	Mme Victor de Bisschop	Snow Goose (Alba Simplex)

CLASS 3.

Cultivars which normally establish well and flower freely in the open, but only produce perfect flowers in especially favourable conditions.

Hana-Fuki	The Bride (P)	White Swan (Yukima Guruma)
Rubescens Major	Yobijin	

CLASS 4.

Cultivars which need care in establishment but which flower freely when established.

Alexander Hunter (P)	Dobrei	Nobilissima
Adolphe Audusson	Joseph Pfingstl	

CLASS 5.

Cultivars which are best suited to greenhouse treatment in our climate.

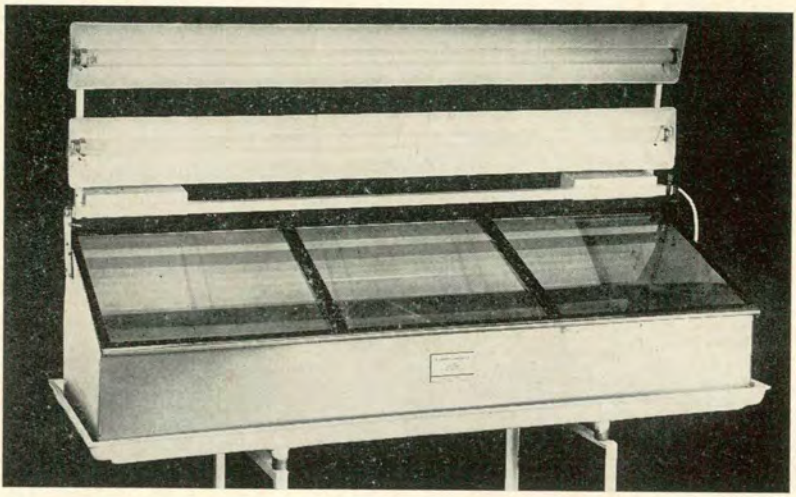
Herme	Mathotiana Rosea	Thelma Dale (P)
Mathotiana	Souvenir de Bahuaud-Litou	Tiffany (P)
Mathotiana Alba		

Camellia reticulata in Galicia

ROBERT GIMSON

During the first quarter of the 19th century many Chinese plants were introduced to England by Mr John Reeves, who was employed by the East India Company as the Chief Inspector of tea in Canton. The movement of Europeans in China was restricted to the treaty ports, but Reeves collected many fine plants, some for his garden and others to send back to England. The genus *Reevesia* was named after him, as was *Skimmia reevesiana*. He constructed small portable greenhouses to be carried on board the East India Company's ships, and gave the ships' masters instructions regarding the care of the plants during the voyage, which in the days of sailing ships took about 4 months round the Cape

The Dewpoint Cabinet



THE DEWPOINT CABINET was described in the R.H.S. Journal of June 1973. A patented system is used to create ideal conditions for propagation and growth. It needs a little electricity and a space 5 ft 6 ins by 2 feet where the temperature does not fluctuate too much, maybe the garage but certainly not in the greenhouse. The tedium of spraying and ventilating can be forgotten, it is only necessary to replace the water used once a fortnight.

Warm water warms the rooting medium. A stream of air is bubbled through the warm water and released into the cabinet. As it cools it becomes over-saturated and so prevents cuttings drying out. Lighting is by fluorescent lamps. Most of the metal is stainless steel.

Results with rhododendrons are remarkable. The seedling illustrated (of Rh. auriculatum) shows three 'years' of growth but it is only nine months old. The percentage 'strike' is so good that one horticultural college puts cuttings into peat pots to avoid root disturbance. Under natural conditions rhododendrons are probably not in active growth for many hours in any day. In the cabinet they probably do not grow any faster per hour but they grow several times as many hours every day, including winter.

The cabinet holds 8 standard seed trays. The maximum height is 15 inches.

This photo shows a 9 month old Rhododendron seedling raised in the cabinet.

A leaflet with details and price (about £275) may be obtained from
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of Good Hope. It was probably Reeves who gave a camellia in 1820 to Captain Richard Rawes, the captain of an East India Company ship, to take to England. Rawes gave it to his friend Mr Thomas Palmer who planted it in his conservatory at Bromley, Kent, where it flowered for the first time in the spring of 1826. In 1824 Mr John Parks sent to the Horticultural Society of London, now the Royal Horticultural Society, a similar plant, and it is possible that this is the old tree still growing in the Temperate House of the Royal Botanic Gardens, Kew, London, where it is now about 7 metres high.

The Horticultural Society commissioned a hand-wrought, coloured illustration to be published in July 1827 in the *Botanical Register*, where it was described as a "splendid new species of Camellia, Captain Rawes' "Camellia". The description of *Camellia reticulata* by Dr John Lindley continues "We conceive there can be no doubt of this being specifically distinct from *C. japonica*, from which it is distinguished by its rigid, flat, strongly reticulated leaves, and also by its silky ovarium. The flowers have also a different aspect; the petals are much undulated, and irregularly and loosely arranged, with none of the compactness and regularity for which the *C. japonica* is so much admired." Later in 1827 another beautiful illustration of the same camellia appeared in the *Botanical Magazine* (t.2784).

Reeves retired to England in 1831, and in 1843 he persuaded the Horticultural Society to send Robert Fortune to China to collect plants and seeds. Fortune sent another form of *Camellia reticulata* to England in 1850, and this bore formal double flowers and so was known as *Camellia reticulata* "Flore Plena". In the *Botanical Magazine* (t.4976) there is a description of a "Netted-leaved Camellia, double-flowered variety", growing in the conservatory of Mr William Martin near Kingston in Surrey. In 1849 it was stated to have been 4 metres high and the branches had a spread of 4.8 m. and a circumference of 15 m. During the following ten years it grew nearly 3 metres. All the other camellias in the conservatory were removed to devote the entire house to it. The description continues "Unlike other really fine specimens of *reticulata* we have seen, the present one does not form a straggling bush, with leaves and flowers so sparse that the branches may everywhere be seen; but its beautiful and ample foliage, and its still more beautiful, and, for a camellia, almost gigantic flowers (eighteen to twenty inches in circumference!) constitute a dense mass of rich green and red, mingled in such equal proportions that it is at first sight difficult to say which predominates, the flowers or the leaves. Every bloom seems to be in its right place, and the number of these is not the least remarkable feature of this unrivalled plant. In the beginning of October, 1848, the multitude of flower buds was so great that it was requisite for the health of the plant that 2600 should be removed; and assuredly, though it was difficult to count them, nearly an equal amount (say 2000, and we are sure we speak within bounds) were allowed to remain; and these were in the perfection of blossom in April 1849!" So at least we know that one or more plants of 'Flore Plena' had been sent to England before Fortune's.

The origin of garden cultivars of *Camellia reticulata* dates back over 1,000 years to the 9th century A.D., and might well go back to the

T'ang dynasty (A.D. 618-906). In the 11th century P. Chao in Cha-Hua-Pua described 72 cultivars of this camellia and there are many references to them in subsequent Chinese literature. One of those cultivars, 'Lion Head', was imported into Japan between 1673 and 1681, and there is an old tree of 'Flore Plena' in the Temple garden of Western Hill, Kunming, Yunnan, fully 10.5 metres high and with a trunk 0.5 m. in diameter estimated to be 250 years old; flowering season January and February. In England two plants of semi-plena were planted at Chatsworth, Derbyshire, about 1840 against a south-facing wall, and a large glass case 7 metres high, 10 m. long and 2.8 m. wide was constructed to protect them in winter. They are trained as espaliers to the full height of 7 metres and bear upwards of 1,000 blossoms every spring. Both plants measure over 60 cm in the circumference of their main stems at 60 cm from the ground. In Cornwall in the old walled garden at Heligan there is a tree 7.5 m. in height and 11 m. in width, and at Tregothnan one 6 m. high; both are semi-plena.

In 1938 H. H. Hu gave the first clue that some cultivars of *C. reticulata*, which were unknown in Europe and very beautiful, were growing in Yunnan Province. Owing to World War II this could not be followed up until 1948-9, when two Americans and an Australian imported some of these cultivars, which became known as the Kunming reticulatas. Subsequent importations from China have since been made into other countries. In 1958 T. T. Yu issued a short description of the various Kunming reticulatas stating that "the shape of the tree is majestic and very beautiful. It can reach more than 10 metres in height, and can live for several hundred years". The Botanical Institute at Kunming sent a schedule of these *reticulatas* to New Zealand in 1963. They opined that the plant known in Europe as 'Flore Plena' or 'Robert Fortune' is 'Sungtzelin', which is now known under the western trade name of 'Pagoda'. Dr Yü has suggested that 'Tsaotaohung' is the same as semi-plena or 'Captain Rawes', but Colonel T. Durrant in New Zealand does not agree.

In 1924 George Forrest, a Scottish botanist, collected seeds of the single form of *C. reticulata* in the Chinese province of Yunnan on the hillsides of Tengyueh near the Shweli-Salween divide, where he found *Camellia saluenensis*. Of the plants which germinated from these seeds the first one flowered in 1932 in the garden at Caerhays, Cornwall. This single flowered form is considered by some botanists to be the species of *C. reticulata* and semi-plena to be a cultivar or hybrid, but Sealy names the single flowered plant *Camellia reticulata* forma *simplex*. Other seedlings from Forrest's collection have been named 'Mary Williams' and 'Trewithen Pink'.

CAMELLIA RETICULATA IN GALICIA

There are some fine specimens in Galicia, and the largest which I have seen is in the garden of the Palace of Oca (20 km. south-east of Santiago de Compostela). It is 10 metres high by 9.40 m. wide and the trunk at 1 m. from the ground has a circumference of 1.16 m.; in 1974 it was in flower on 27 March. A few kilometres north of Oca at Santa Cruz de Rivadulla is a tree 6 m. high by 6 m. wide with a circumference of the trunk of 60 cm. The latter was planted between 1880 and 1890, so I surmise that the tree at Oca was planted about 1850. Unfortunately

both these trees have been overgrown by other plants, chiefly *C. japonica*. Is it too late to hope that the owners might cut back some of the surrounding bushes to reveal these two historic trees in all their glory? At Puente Ulla there are several younger trees in excellent condition. In Vigo I know two gardens with healthy shrubs; in one of these two were planted 30 years ago and they are of identical size, 3.20 m. high by 4.20 m. wide with a circumference of the trunks of 65 cm and were in flower in the last week of February 1974. These two were bought from the nursery of Alfredo Moreira da Silva in Oporto. There is a younger shrub in a garden at Bueu, and very young plants at Rubianes, Torre de Lama, Vilanovina and Meis. All the plants which I saw in flower are semi-plena.

The nursery of Alfredo Moreira da Silva was founded in 1895, and in the catalogue (1873) of the School of Agriculture, La Caeyra, Pontevedra, which is in the Pontevedra Museum there is no mention of *C. reticulata*, so the plants at Oca and Santa Cruz de Rivadulla must have come from another source. For many years the Companhia Horticolo-Agricola Portuense, which was the successor to the nursery founded by D. Jose, Marques Loureiro, in 1849, offered in their catalogues "Camelia reticulata – Rosa vivo" (presumably semi-plena) and "Camelia reticulata – Dobrada, rosa brilhante" (probably 'Flore Plena'). Perhaps the Oca and Santa Cruz de Rivadulla plants came from there.

CULTIVATION

Camellias need an acid soil which there is in Galicia. They must also be planted in soil which is well drained, so that the heavy winter rains do not remain around the roots of the plants, but young plants should be given a mulch of leaves or pine needles in summer to protect their roots near the surface of the soil. The japonicas grow better in part shade, but the reticulatas should be planted where it is not shaded, and it must be remembered that they will grow into small trees so they should be planted about 10 metres apart.

Until recently the reticulatas were propagated by grafting on japonica stocks or by air-layering. Reticulatas grafted on japonica stocks may grow poorly, because the stock does not develop at the same rate as the scion and after some years a "bottle neck" develops at the graft. At the present time some reticulatas are propagated by grafting on other reticulatas grown from seeds, and others may be grown from cuttings in a mist-propagator.

The reticulatas are less resistant to cold than the japonicas, although it has been recorded that they have withstood frosts of –7°C. There are only two regions in Europe where *C. reticulata* can be grown outdoors, on the north-western seaboard of the Iberian peninsula (i.e. the provinces of Pontevedra and Coruna and in Portugal north of the Tagus).

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Methods of Improving Bud Initiation in Camellias

MARGARET A. SCOTT*

Budding of camellias is an important consideration in relation to their sales potential and in work at Efford Experimental Horticulture Station over the past five years we have investigated, with a range of cultivars, factors likely to improve bud initiation, including temperature, nutrition and the use of growth retardants. Plants used in all trials were about 18 months old at the start of treatments and were in 5 in. (127mm) plastic pots. Four cultivars were used in the 1970-73 trials, these being 'Lady Clare', 'Frau Minna Seidel' ('Pink Perfection'), 'Imbricata Alba' and 'Preston Rose', which were selected to provide a range of budding characteristics. The basic compost used was a 75% peat : 25% sand mix, though base dressings varied between experiments. Base dressing now used for camellias at the Station incorporates the following:

	lbs. per cu. yd.	kg. per cu. m.
Potassium nitrate	$1\frac{1}{4}$	0.75
Single superphosphate	5	3.00
Magnesian limestone	4	2.40
Fritted trace element 253A	$\frac{1}{2}$	0.30

With this base dressing a liquid feed programme starts 2 to 3 weeks after potting.

Summarised below are the results of five years investigations, concluding with the cultural programme recommended for improving budding formulated as a result of this work.

1970

In a small preliminary trial, budding of all cultivars was found to improve at a high night temperature of 60°F. (15.5°C.), as compared with plants grown under cold glass. Budding also improved as concentration of the weekly liquid nitrogen feeds increased and where

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the growth retardants Cycocel (0.35%) or TIBA (50 mg/l) were applied as monthly drenches from May to August. Effects were cumulative, with the greatest budding response at the high temperature and where the high N feed and growth retardants were also applied (Table 1).

Table 1. *Effects of temperature, nitrogen and Cycocel on number of floral buds*

Cultivar	High Temp (60°F) High N + Cycocel	Low Temp (cold) Low Feed
Lady Clare	11	5
Frau Minna Seidel	12	2
Imbricata Alba	15	2
Preston Rose	6	1

1971

Timing of the high temperature treatment was considered next, with plants grown at 60°F. (15.5°C.) night from either early April or late May and being moved back to cold glass as soon as buds were visible. The earlier the high temperature was given the faster initiation occurred, with the result that autumn flowering could be obtained if required. Delaying high temperatures until late May promoted the greatest initiation, however, and flowering occurred in the following spring. But the most promising result from this trial was the marked improvement in budding obtained in response to Cycocel drenches (0.35%) from May to August under cold glass (Table 2).

Table 2. *Effects of temperature and Cycocel on number of floral buds per plant*

Cultivar	High Temp (from May)		High Temp (from April)		Cold Glass	
	+ Cycocel	Untreated	+ Cycocel	Untreated	+ Cycocel	Untreated
Lady Clare	8	6	6	5	9	6
Frau Minna Seidel	11	8	11	7	11	4
Imbricata Alba	12	9	10	6	9	6
Preston Rose	8	3	4	3	3	1

(Full details of this experiment can be found in the 1971 *Efford Annual Report*, p. 92.)

1972

In view of results obtained with Cycocel during 1971 it was decided to concentrate work on improving bud initiation under cold glass conditions. The effects of various concentrations of Cycocel drenches (applied monthly from May to August) and levels of nitrogen nutrition, (applied as a weekly liquid feed from May) were investigated. Bud initiation improved by increasing both the concentration of Cycocel and nitrogen feed, and a beneficial side effect was an improvement in growth and foliage colour. Effects were again cumulative with the

greatest budding response where plants received the highest rate of Cycocel and feed (Table 3). This rate of feed was relatively high and it was found essential to discontinue feeding during August to avoid some leaf and bud drop. The crop, grown cold, flowered in the spring.

Table 3. Effects of concentration of Cycocel and nitrogen on number of floral buds

ppm	Lady Clare			Frau Minna Seidel			Imbricata Alba			Preston Rose			Mean
N	100	200	400	100	200	400	100	200	400	100	200	400	
Conc Cycocel													
Untreated	3	3	2	3	5	5	3	5	4	0	0	1	2.8
0.1%	4	6	7	6	6	9	3	6	7	0	1	1	4.7
0.2%	4	6	9	8	7	13	5	5	7	1	0	2	5.6
0.3%	6	5	10	7	12	17	5	6	9	2	1	4	7.0
Mean	4.3	5.0	7.0	6.0	7.5	11.0	4.0	5.5	6.8	0.8	0.5	2.0	

(Full details of this experiment can be found in the 1972 *Efford Annual Report*, p. 116.)

1973

This trial was designed to determine when best to start Cycocel treatments and the number of applications required. Levels of phosphate in the compost were found to be very low with the plants used and effects of applying a top dressing of single superphosphate, which brought the level to that normally applied in the peat : sand compost, were examined. There was a marked increase in budding in response to the phosphate application but effects of Cycocel were small this season, a response being obtained only where phosphate was low (Table 4). In general the earlier the Cycocel was applied the greater the budding but the better plants in terms of growth to buds were produced where applications started in June. Response to number of applications was variable and two applications appeared adequate.

Table 4. Effects of phosphate and Cycocel on number of floral buds per plant

	+ Phosphate				— Phosphate			
Cycocel commencing:	May	June	July	Untreated	May	June	July	Untreated
Lady Clare	15	15	11	15	8	6	5	4
Frau Minna Seidel	22	16	12	18	10	9	8	6
Imbricata Alba	23	20	22	24	7	7	7	3
Preston Rose	7	4	6	5	1	1	1	1

(Full details of this experiment can be found in the 1973 *Efford Annual Report*, p. 167.)

1974

The best treatments from the previous 4 years were compared with "standard" regimes with 23 varieties grown under different situations.

Overall, the greatest initiation occurred where plants received a high nitrogen feed (400 ppm N weekly from May – August), a top dressing of single superphosphate in the spring and applications of Cycocel (0.3%) during June and July (Table 5). This treatment promoted budding outdoors as well as in tunnel structures clad with windbreak netting or opaque white polythene and under cold glass.

Table 5. Number of floral buds per plant in response to "Best Treatment" being applied under cold glass

Cultivar	200 ppm N	400 ppm N+P	400 ppm N+P+CCC
Lady Clare	5	5	11
Hana Tachibana	2	3	7
Frau Minna Seidel	4	7	12
Imbricata Alba	4	5	9
Imbricata Rubra	1	1	6
Mathotiana Supreme	2	4	10
Adolphe Audusson	3	5	5
Kramer's Supreme	0	1	1
Preston Rose	0	0	1
Mean	2.3	3.4	6.9

Conclusion

Results over the five years have shown that budding can be improved by attention to feeding, both nitrogen and phosphate, by growth retardants, particularly Cycocel, and by increased night temperature, though this latter seems uneconomic in view of results obtained under cold glass with the other treatments. Effects appear cumulative with the greatest budding being achieved where a combination of all factors was applied. The improvement in budding achieved in response to these factors will vary with variety and season.

Provided plants received adequate feed further increases in budding in response to Cycocel were only observed in poor budding seasons, but in order to obtain maximum budding in all seasons Cycocel would need including in the programme. Cycocel will reduce current season's growth, mainly due to earlier bud initiation, but providing plants are not too small at the start this will not detract from their final appearance. The response to phosphate top dressings in these trials was obtained with plants which had low levels in the compost at the start, and presumably the response would have been similar if it had been applied in the base dressing. It is important to stop feeding by mid August to ensure salt concentrations do not build up after cessation of growth as this will cause leaf and bud drop.

The programme to be followed for improving budding in the year plants reach flowering size is tabulated below (Table 6). Estimated cost of the treatment is less than 1p/pot (excluding labour).

Table 6. Programme for improving budding

Action required	Rate of application per 60 pots	
	12 cm diam	4¾ in. diam
Early spring – top dress compost with single superphosphate		
Phosphorus Index less than 3	180 g =	6 oz
Phosphorus Index 3 to 4	120 g =	4 oz
May to August – weekly feeds 420 ppm N 230 ppm K_2O – To make dissolve 1 lb potassium nitrate and 2 lb ammonium nitrate in 1 gal water. Dilute 1:200 Avoid feed on foliage or wash off immediately	4.5 litres of diluted = feed	1 gallon of diluted feed
Early June and repeat early July	36 ml Cycocel in 4.5 litres = of water	1¼ fl oz Cycocel in 1 gallon of water

Camellia granthamiana

GEOFFREY GORER

I think it is doubtful whether many amateur gardeners would have classified as a camellia the solitary small tree found north-west of Kowloon in the New Territories of Hong Kong in 1955 and named after Sir Alexander Grantham*. In flower it more closely resembles *Gordonia lasianthus*, *G. axillaris* or *Franklinia altamaha* than it does any previously cultivated camellia (in my frost-free greenhouse it grows next to *G. axillaris* and when both are in flower together it is sometimes quite difficult to determine which plant a flower belongs to, apart from size); and its leaves and buds do not resemble any other camellia. It is, however, a tetraploid camellia (2n=60) and is fertile with *C. reticulata* and *C. japonica*.

The leaves are ovate-lanceolate and markedly acuminate, up to 15 cm (6 inches) long and 7 cm (2½ inches) wide and with serrated edges; they are markedly bullate with the veins impressed on the dark spinach-green upper surface and outstanding on the pale jade-green under surface. As a foliage tree it is distinguished at any time of the year; when the young foliage develops in early spring it is bright bronze for a few weeks and gives the tree a second season of beauty. A third season is given when the woody-looking buds develop; they look almost like pale brown nuts (they are described in the *Botanical Magazine* as "perulate" and "leathery-crustaceous") in marked contrast to the leaves and complementing the deeper brown of the bark.

In my experience, the plant does not flower until it is about 2 m. (6 ft) high; with me this took five years. But when it does reach flowering size it flowers with great freedom and regularity for about two

* Governor of Hong Kong 1947-1957.

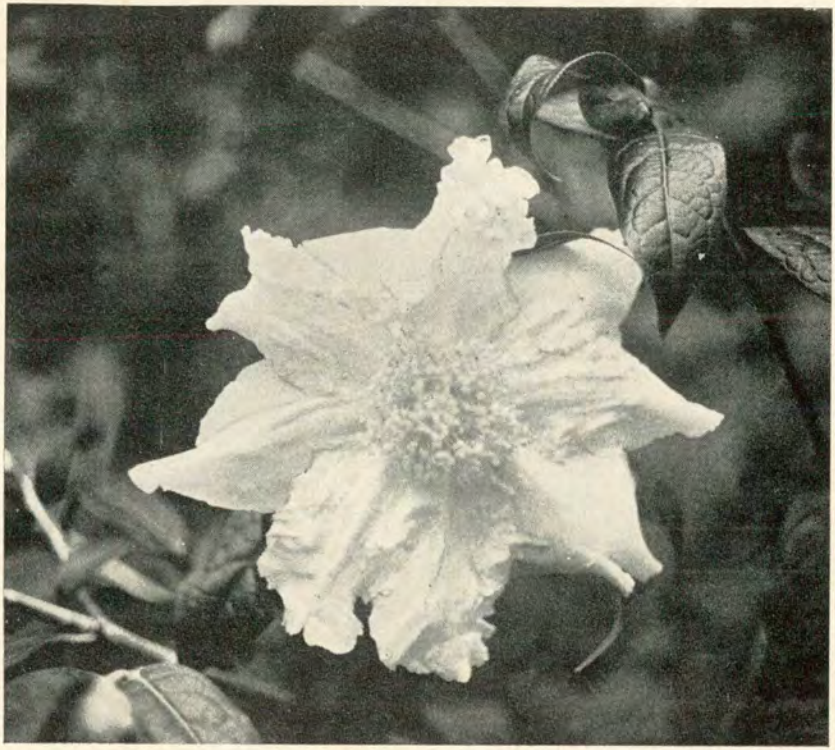


Fig. 6

Camellia granthamiana

months, typically November and December. The flowers are 15 cm (6 in.) and more across and consist of nine pure white petals, three of which are narrower than the other six. The large boss of stamens (4 cm, 1½ in.) is bright orange and the colour is reflected on the glossy white petals, giving the impression of an orange glow at the base of the flower. The anthers are first cream-coloured, contrasting with the stamens, and finally ripen to a pale gold. The white style is hidden by the stamens. When the flower is over, the petals and stamens fall in a single piece, leaving the style and the woody bud scales. My plant has never developed seeds.

Its cultivation needs seem to be the same as those of the *reticulata* camellias: a frost-free temperature (my thermostat is set at 37°F.), a light acid soil and, most importantly, no root disturbance. I have never seen it successfully cultivated as a pot plant and it needs plenty of room; it is a small tree, not a shrub. I consider it one of the most beautiful and interesting small trees I know. I do not know if it has been successfully grown outside in some very mild garden in Britain.

The *Botanical Magazine* of 1972 (N.S.L. 597) has a most detailed botanical description of *Camellia granthamiana* with a typically exquisite painting by Margaret Stones.

Apparently the American camellia growers are using *C. granthamiana* as a pollen parent for producing hybrids; the only one I have seen, 'China Lady', is a rather ordinary single pink camellia though the leaves are slightly bullate. It seems to me that it might perhaps be possible to cross it with single white japonicas (such as 'Alba Simplex' or 'Devoniensis') to give hardiness without losing too much of *C. granthamiana*'s character and beauty. I think, however, that this is one more case where the species can only be diminished by hybridization.

Magnolias in the Hillier Gardens and Arboretum

H. G. HILLIER and C. R. LANCASTER

The Hillier Gardens and Arboretum are situated in Hampshire, between Winchester and Romsey through which flows the Test famed for its trout. The highest part of the Arboretum, 290ft, occurs near Brentry House which at this point is situated on the Bagshot Sands. From here the ground slopes northwest to the village of Braishfield, by which time it has left the sands and joined the London Clay Beds. At no point in the arboretum does the chalk appear at the surface, although it occurs some 750ft below Jermyns House and is the dominant soil within ½ mile of our northern boundary. Soil pH ranges from 5 on the sand to 6.7 on the clay.

The arboretum is exposed to the north and attracts strong winds on occasions. Many magnolias, in particular the large leaved and tree species, do not thrive in the northern parts of the arboretum, resenting the cold winds and lack of shelter. Average annual rainfall is 32in. and average mean daily temperature 9.5°C (50°F).

When H. G. Hillier came to live at Jermyns House in 1953 there was a small garden, mainly lawns and a shrubbery, with several large specimen trees, including sweet chestnut, limes, a cedar and numerous fine beech planted in 1840. The only magnolia represented was a rather sprawling *M.* × *soulangiana* in the valley behind the house.

Immediately on settling in, he began an ambitious programme of development and planting which included the absorption of the initial piece of nursery as the basis of an arboretum (an area now known as Ten Acres). Gradually there emerged what is, today, one of the largest collections of hardy woody plants in the temperate regions.

The Gardens and Arboretum now exceed 100 acres and serve several functions. Basically it is a private collection constantly being added to by gifts from friends and enthusiasts, exchanges with other gardens and arboreta and purchases from other nurseries. Secondly it serves as a reservoir providing the nursery with authentic material for propagation. Thirdly it is an educational and recreational showcase around which visitors may wander at leisure (Mondays to Fridays 8am to 4.30pm except bank holidays), observing plants in all their multiplicity of shape and form, colour and effect at all seasons.

Another aspect of the collections, often overlooked, is the very important one of conservation. Apart from the hundreds of old neglected garden cultivars which we maintain, there are many plants represented here which are extremely rare in the wild and their presence in collections such as this offers their best, perhaps only, hope for survival. In this connection we have placed great importance on the planting of rare and neglected species collected as seed in the wild, and in recent years we have added to the collection hundreds of species

from Nepal, Persia, Russia and the south-east of the United States, a number of which constitute the first introduction into the British Isles.

In describing the magnolias growing in the arboretum we have grouped them according to their eventual size. This first part covers magnolias of a shrubby habit, usually less than 10 feet, and small trees (10-30 feet).

SHRUBBY HABIT

Although many magnolias produce several rather than a single main stem only a handful can be said to remain shrubby in cultivation. Of these the white flowered *M. stellata* is the best known. It is, perhaps, the most useful and adaptable of all magnolias, being relatively small, reliable in flower and tolerant of most soils and situations. It is represented in several areas of the arboretum especially in Ten Acres where a good number have been planted. It is variable in size of flower and number of petals and the American-raised cultivar, 'Waterlily', is generally regarded as being one of the best of these. However, several seed-grown plants have produced flowers of similar proportions so that the situation has become confused. For many years we have grown two "pink" flowered forms of this species under the names 'Rosea' and 'Rubra'. The former is an inferior clone, found in general cultivation with rather dingy flowers of a wishy-washy pink in bud, becoming white later. 'Rubra' is a better clone with slightly larger flowers, deep pink in bud, paling to blush as they mature.

The growth of typical *M. stellata* is always dense and bushy with crowded branches, and this is shown in its various clones. Seed-grown specimens which show unusual vigour and develop strong erect leaders to form a tree are likely to be hybrids with *M. kobus*, a group called *M.* × *loebneri*. A further distinction is the densely pubescent young shoots of *M. stellata* (even in winter) as against those of *M.* × *loebneri* which are smooth or near-so (particularly in winter).

Some botanists regard *M. stellata* and *M. kobus* as belonging to one variable species and if one raises a large quantity of these plants from seed there is evidence to support this theory.

Magnolia ashei reaches 25ft in Florida and Texas but has never really settled with us, rarely attaining 6 feet. Without the long hot summers of its native climate its growths rarely ripen sufficiently to carry them through even a mild winter, and our few specimens have, as a result, remained scrappy, although the large leaves are imposing if given shelter from wind.

With its smooth, net-veined, evergreen leaves and nodding terminal, creamy-white globular flowers – *M. coco* (syn. *pumila*) is a desirable if unusual species. Unfortunately it is too tender for outdoor cultivation and our only specimen is growing in a cool glasshouse. It is perhaps worth having for its fragrance which, especially during the evening, pervades the air around.

Small trees

Within this range are found a greater number of magnolias than in any other, a fact particularly gratifying to those with small gardens. We will begin with what is to many gardeners the epitome of all that is exotic in a magnolia – *M.* × *soulangiana*. The majority of our cus-

tomers regard this as *the* magnolia. It is often the only magnolia with which they are familiar and it represents (in one cultivar or another) about 60% of all magnolias sold each year.

There are many different named clones and even more unnamed seedlings varying greatly in merit. Of the named clones several are represented in the arboretum, and between them flower throughout April and the first half of May with their goblets of white, stained with rose or purple.

'Alexandrina' is one of the older clones and is distinguished by its erect stance with long raking branches, along which the white, purple-flushed flowers occur in ample clusters. It is a glorious sight in full blossom and we regard it as one of the best and certainly one of the most reliable clones. 'Norbertii', of which we also have several specimens, comes closest to 'Alexandrina' in its floral effect, but the habit is slightly less vigorous and erect and the flowers, though similar in colour, are slightly smaller and carried less thickly on the branches and appear slightly earlier.

'Lennei' needs little introduction and its characteristic globular, deep vinous-purple flowers in late April and May are appreciated by all. A second period of flowering in late summer adds to its value, though its wide-spreading habit in later years commend it more for the large garden where it makes a magnificent lawn specimen. 'Rustica Rubra' is a seedling of 'Lennei', and this, whilst lacking the size of flower and lateness of its mother is, nevertheless, an excellent magnolia for general planting. We have several specimens in various parts of the arboretum and it remains a popular choice with customers.

Reputedly a seedling of 'Lennei' – 'Lennei Alba' is one of the best of the white-flowered clones. The flowers have the narrowed base of *M. denudata* like the stem of a goblet and are a creamy or ivory colour rather than pure white. It is sometimes met with in cultivation under the name *M. denudata* but differs most noticeably in the three outer tepals being shorter than the inner.

The name 'Alba' covers a host of white-flowered clones in cultivation, some with varying degrees of purple at the base. Not all are worth growing but 'Alba Superba' is arguably the best. Although the plant in general cultivation may not be the same as that which was originally named, there can be no doubt as to its ornamental qualities, its white flowers having just a hint of purple at the base of the inner tepals.

'Brozzonii' is one of the most striking clones, a splendid magnolia with large, lovely chalices of white, the inner tepals purple-flushed at the base. A vigorous specimen overlooking the car park is at its best during the latter part of April.

'Triumphans' we received as *M. denudata* 'Triumphans' from W. B. Clarke & Co., California, in 1956. It is of no special merit, having average-sized white flowers tinged purple on the outside.

'Speciosa' is a distinct clone with erect stems and white flowers flushed purple on the outside. It flowers later than most and often flaunts occasional blooms in early June.

Of all the magnolia hybrids to appear in recent years perhaps 'Picture' has created the greatest impression amongst our customers and visitors. Raised in Japan by Mr K. Wada by pollinating *M. denudata* with

M. liliiflora 'Nigra', its flowers are as large as, if not larger than those of 'Brozzonii' and of a striking rich purple on the outside and clear white within. Erect in bud, the flowers come to resemble superb waterlilies as the long tepals expand to reveal the central cone. Added to this is the erect habit of the plant itself, forming in time an imposing column which, presumably, will broaden out in maturity. Our largest specimen is already 12 feet high in nine years after planting and regularly attracts attention when in flower.

Of the parents of *M.* × *soulangiana*, *M. denudata* (*conspicua*) is perhaps the best known, and flowering, as it normally does, 1 or 2 weeks in advance of most of its hybrid progeny, it is the first to catch the eye in early April. Its slender-necked goblets possess an elegance unsurpassed in the genus (only *M. cylindrica* of the species and 'Lennei Alba' of the hybrids approaching it).

Several authorities consider true *M. denudata* as having all nine tepals of equal length. If this character is considered critical then many so-called *M. denudata* in cultivation with tepals of unequal length are, presumably, hybrids (*M.* × *soulangiana*).

M. denudata 'Purple Eye' is a lovely clone with large wide open flowers originally received as a form of *M. denudata*. It has flowers of similar charm but with the inner tepals flushed purple at the base and is almost certainly a hybrid (*M.* × *soulangiana*). Some years ago we supplied a quantity of this magnolia to the City of Köln (Cologne), and when we saw them recently they were superb, really outstanding.

M. liliiflora is remarkable among hardy magnolias for its multi-stemmed, compact, rounded or conical habit of growth. All specimens

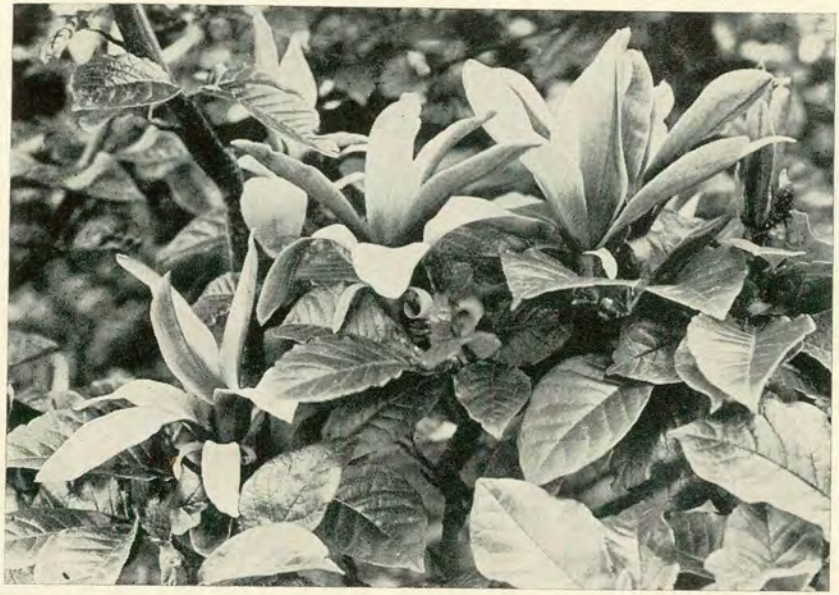


Fig. 7

Magnolia liliiflora 'Nigra'

in the arboretum exhibit this characteristic which makes it one of the most popular magnolias for small gardens. Few other species carry flowers over so long a period, from mid-April to mid-June. The neat glossy green leaves also add to its charm and usefulness. Even better is the clone 'Nigra' with its rich purple flowers standing like dark candles amongst the glistening foliage. We strongly recommend it to the small garden owner as a sensible alternative to *M.* × *soulangiana*.

In an attempt to extend the flowering season and range of flower colour and continue the desirable qualities of *M. liliiflora*, a series of crosses were made in 1955/56 at the United States National Arboretum, Washington, between this species and *M. stellata*. These resulted in a range of seedlings which, according to arboretum reports, were superior to their parents in size, colour, fragrance and abundance of flower. Their habit was described as multiple stemmed, rounded or conical, erect-growing and 6 to 10ft in height. In 1968 and again in 1970 we received scions of eight named clones – 'Ann', 'Betty', 'Jane', 'Judy', 'Pinkie', 'Randy', 'Ricki' and 'Susan', and these were eventually planted out in Ten Acres. At present they are showing both habit and flower characters more in keeping with *M. liliiflora* than *M. stellata*. They are, however, growing very slowly even though other magnolias including *M. stellata* close by have shown no such reticence. Only time will tell if these, potentially valuable hybrids, will equal in this country their performance in America.

The Japanese *M. kobus* is represented here by several young trees of which only one has begun to flower. The variety *borealis* is still small and unflowered, although its reputed performance in flower makes us wonder whether the event is worth waiting for. In the Hunnewell Arboretum in Massachusetts in 1963, Harold Hillier was shown a very old, hollow-stemmed tree with an enormous butt, much older and larger than any tree he had seen in Europe. It appeared distinct in having leaves considerably larger than those with which we are familiar.

Flowering at an early age is the *kobus* hybrid 'Kewensis', a habit obviously influenced by the other parent *M. salicifolia*. The slender branches and rather conical habit (at least when young) makes this a pleasant addition to the arboretum, and its unfailing flower display before the leaves in April is a most welcome event. Our largest specimen is 16 feet.

Of the same parentage in our opinion, a supposition supported by its fragrant branches when bruised, is a magnolia which was selected from a number of Japanese grown, seed-raised plants at the University of Washington Arboretum, Seattle, U.S.A. These seedlings, labelled *M. kobus*, were received in 1940 from the Yokohama nursery of Mr K. Wada and the selected clone was named, appropriately, 'Wada's Memory'. It is very similar to 'Kewensis' and is equally floriferous. The fragrant flowers (a mild smell of Germoline) are carried in abundance. The windmill-like long, obovate tepals give the flowers a diameter of 7 or 8 inches. It is altogether a better tree for private gardens, although, due to the influence of *M. salicifolia*, it is not so good a magnolia on chalk soils. Our specimen, now 14 feet high, is planted by the

Spring Walk immediately against a large group of *Camellia* × *williamsii* 'Donation'. Flowering at the same time, they make a delightful and spectacular combination.

Quite happy on chalk soils is the *kobus* hybrid with *M. stellata* – *M.* × *loebneri*. Surely this, in its several clones, is one of the most reliable and easy to grow of all small tree magnolias, especially valuable in that it flowers when quite young. It is well represented in the arboretum and its vigour and floriferousness know no bounds. 'Merrill' is the best of the whites with us and its flowers are fragrant too. We have had 'Snowdrift' for many years and it is probably one of the original batch of seedlings raised in Germany at the beginning of this century. For years it bore no name until we decided that its merits deserved permanent recognition.

Since its birth at Nymans, Sussex, just after the last world war, 'Leonard Messel' has collected all three major awards of the R.H.S. Not surprisingly this clone of *M.* × *loebneri* is also one of the most popular with our customers. Two 10 foot specimens on the lawn in front of Jermyns House have annually drawn swarms of eager admirers with their crowded display of pink-flushed flowers before the leaves in April. Other specimens in Ten Acres are growing very strongly (one being 16 feet) and are already contributing greatly to the beauty of this area in spring.

In Ten Acres also grow several specimens of the beautiful willow-leaved magnolia, *M. salicifolia*, and the clone 'Jermyns' which produces abundant flowers of excellent quality. 'Jermyns' differs in its slightly shorter, broader leaves noticeably glaucous beneath and its more shrubby habit compared with the type which is growing strongly and exhibiting a beautiful slender, conical form. The pungent aroma of the young bark when scraped is not only a characteristic of *this* species and its hybrids, but it is also found in *M. kobus* and its hybrids (*M.* × *loebneri*), though usually less pronounced.

M. × *proctoriana* combines the qualities of its parents (*M. salicifolia* and *M. stellata*) and its multi-petalled white flowers with a faint pinkish bar at the base of the narrow tepals are a regular feature each April in Ten Acres.

Of all those magnolias which flower before the leaves, one of the most elegant in habit and flower is the Chinese *M. cylindrica*. Hilliers' were the first to introduce this species to Britain via the U.S.A. two or three years after the 1939-45 war. The largest specimen in the arboretum at present is 16 feet. Its branches project steeply over and above surrounding camellias and in April are lined with beautifully shaped white flowers which stand poised like waxen candles in dusky brown cups. The tepals are not wholly white having a faint rose flush at their base. Later the tepals open and bend outwards, spread-eagling like a star. Our plants were originally received from the late Mrs Norman Henry.

Both *M. wilsonii* and *M. sinensis* thrive in various parts of the arboretum as does the so-called hybrid between the two, *M.* × *highdownensis*. In our opinion this plant should be treated as a cultivar of

M. wilsonii as it differs little from that species. *M. wilsonii* is comparatively lime tolerant.

We also grow the form of *M. wilsonii* originally described as a species *M. taliensis*. Our plants are still relatively young but they appear more shrubby in habit than the type with numerous comparatively erect stems. The leaves too are narrower and less hairy. It is a plant of botanical interest rather than horticultural merit.

Related to the preceding species is *M. globosa* which we have from several sources, two a comparatively recent gift from Mr Holman. The rich rufous velvet of its buds and young leaves is equalled by no other hardy species, and when the nodding, globular, creamy white flowers appear in June their fragrance fills the evening air around. Our largest specimen is 11 feet and flowered for the first time in 1973.

M. sieboldii is one of our favourites and is always admired by visitors intrigued by its inclined flowers and sweet fragrance. Its hybrid with *M. hypoleuca* – *M.* × *watsonii* – carries the rich medicinal scent of the latter parent and its flowers too resemble miniature versions of that species.

Fig. 8

Magnolia × *watsonii*

A species which always amuses customers and visitors during late summer is *M. virginiana*. They are often unable to equate this magnolia in their minds with something like *M.* × *soulangiana*. Agreed it is rather different but its small cream coloured, fragrant cup-shaped flowers, produced over such a long season are indispensable, whilst the neat glossy leaves are partially evergreen in mild winters. It is surprising that this Virginian is reasonably lime tolerant.

M. × *thompsoniana* is a hybrid of *M. virginiana* with *M. tripetala*, an instance of two Americans mating in London (Kew Gardens). This wide-spreading vigorous shrub forms a large mound of spreading branches clothed with large semi-persistent leaves. These are highlighted at intervals throughout the summer by the appearance of large, fragrant, wide open, flowers with long, parchment-coloured tepals. Our largest specimen now measures 18 feet high by as much through.

Fig. 9

Magnolia 'Charles Coates'

Another hybrid which, like the last, seems intent on forming a large mound, is 'Charles Coates'. Raised at Kew by a former foreman propagator, after whom it is named, this really is a splendid shrubby tree with its large bold leaves and large fragrant creamy-white flowers during May and June. Two specimens growing together in Ten Acres are 20 feet high and as much through.

Apart from *M. rostrata*, the largest leaved magnolia is *M. macrophylla* which, unlike its near relative *M. ashei*, grows reasonably well with us. Specimens have been planted out in different areas, one at 16 feet in heavy shade, whilst a large 20 feet specimen transplanted from our former Chandlers Ford Nursery in April 1971 has attained flowering size.

Slow growing though eventually capable of reaching 50 feet is *M. cordata* regarded by some as a variety of *M. acuminata*. Rarely seen in cultivation, its flowers are cup-shaped and of a soft canary-yellow sometimes green-stained and are produced with the leaves during summer and early autumn. Though less conspicuous and exotic than most they are not unattractive and are even produced on young plants.

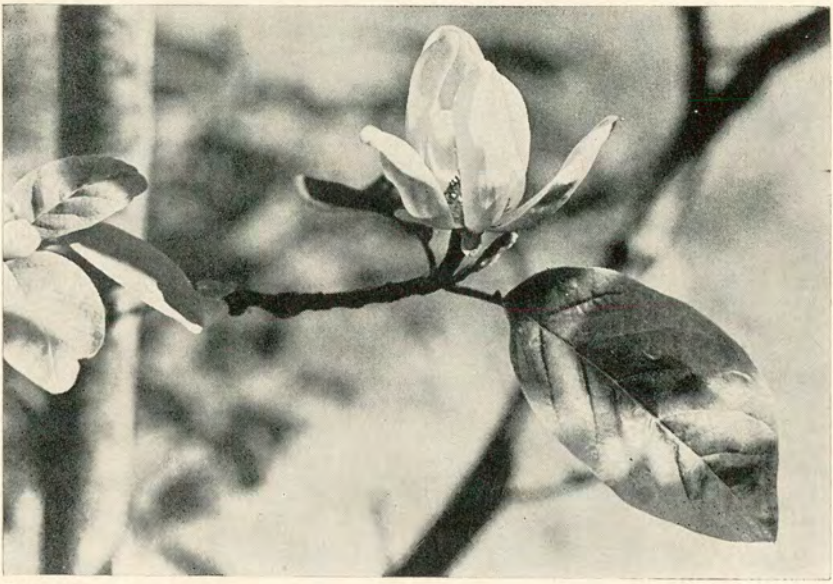


Fig. 10

Magnolia cordata

Add to this the fairly compact mounded habit of growth and neat foliage and one has a useful plant for the connoisseur's garden. We have two established specimens of this species at 10 and 13 feet respectively.

The last magnolia we shall mention in this section (*M. grandiflora*, *M. delavayi* and *M. nitida* being included under the heading Evergreens) is *M. sprengeri* var. *elongata*. Several specimens of 10 feet are growing happily in Ten Acres and have been flowering profusely for several years. Although this magnolia is given short shrift by some writers on the subject, it is, in our opinion, worth considering for the small garden. Its hardiness is well known and this, combined with its neat, multi-stemmed habit, makes it an excellent candidate for less spacious areas. Its small but beautifully poised flowers resemble miniature waterlilies with neat creamy-white tepals. The purple anthers form a dark eye at the base.

(to be continued)

Magnolia cylindrica

N. G. TRESEDER

This species was discovered by Wilson in 1927 and is to be found over a large area of eastern China from southern Anhwei to northern Fukien. It was not introduced until 1936, when viable seeds reached America from the Lu-Shan Botanical Garden in Kuling, Kiu Kiang, China. The seeds were reported to have been collected from Western Anhwei at an elevation of 4,200 feet (1,280m). Seeds sent to England failed to germinate, but it was eventually introduced as scions from America, about 1950, which were evidently grafted by Hillier & Sons. The Lu-Shan Arboretum and Botanical Garden's Descriptive Catalogue of Chinese Tree Seeds 1936-1937 included "*Magnolia cylindrica*, handsomest small rare deciduous tree, first described by Dr E. H. Wilson in 1927 and limited supply of seeds becomes available for the first time: Pkt. 40c; 1oz. $1.00; 2ozs. $1.80." The list also offered seed of *M. denudata* and *M. officinalis biloba*, the latter also for the first time. It would seem that this was intended for American customers and it is known that several were successful in raising seedlings of these magnolias. The original citation was published by Rehder and Wilson in the *Journal of American Arboriculture*, Volume 109 (1927) under

the heading 'Ligneous Plants of Anhwei' which quoted Wilson's notes on *M. cylindrica:*

"This very distinct new species is well distinguished by its thin narrow prominently reticulated leaves, by its slender petioles and by its cylindrical fruits. It is most closely related to the Japanese *M. salicifolia* Maxim. which has rather larger leaves, usually acuminate and glaucescent on the undersides, glabrous winter buds and branchlets and a smaller, much less cylindric fruit.

"The flowers of our new species are unknown but they appear before the leaves. The foliage is deciduous and the wood when cut has a spicy fragrance similar to that of *M. salicifolia* Maxim. and *M. kobus* D.C."

The leaves of herbarium specimens vary in length from about 2½ in. (6cm) to 4¾ in. (12cm) and from ½ in. (1.1cm) to 1⅛ in. (3cm) in width. Apparently the type was collected by Pen-Chang Ching in 1925 (under number 2949) in the Hwang Shan of southern Anhwei.

The two fruit cones on the specimen in the Harvard University Herbarium, from which Wilson named the species, are smooth and sausage-like, about 3 in. (7.4cm) long by 1 in. (2.3cm) in diameter. It is described as "Small tree or big shrub to 30 feet, leaves thick, glossy green above. In shaded ravine".

Because of its southerly distribution, roughly from latitude 28° to 32° north, it was naturally assumed that this magnolia would be of doubtful hardiness, but it has certainly proved tough enough, not only in English gardens, but also in several in the eastern states of North America.

Plants distributed by Hilliers appear to represent two different clones. Most of these magnolias, now some twenty-five years old, have developed into spreading bushy plants with almost horizontal branches along which the precocious blossoms arise in candle-like array. Mr Nigel Holman reports that, at Chyverton, the flower buds have suffered little or no damage from a 10° (F.) ground frost whilst showing colour when those of *M.* × *soulangiana* were badly damaged. This magnolia produces quite a sensational display which demands admiration even when seen amidst densely-flowered trees of the more colourful and larger-flowered *Yulania* section. A second and more arborescent form, of erect and compact habit, resembles the type seen by the author in a Michigan garden and is referred to later.

David G. Leach of Brookville, Pennsylvania, reported that he had found *M. cylindrica* completely unharmed at –23°F., whilst Philip J. Savage Jnr. recorded a low of –14° in his garden at Bloomfield Hills, Michigan, in January 1970, which caused his specimen no harm. He even goes as far as to suggest that the magnolia now being grown as *M. cylindrica* is likely to have originated in a more northerly habitat than the low mountains south of Hankow, which Rehder and Wilson regarded as its home.

M. cylindrica received an Award of Merit from the Royal Horticultural Society in April 1963 when exhibited by The Crown Estate Commissioners, Windsor. The flowers have been described as "resembling *M. kobus* but slightly larger" though in my opinion the resemblance, apart from their brown false calyces, is more with *M. denudata* or *M.* × *soulangiana*, indeed one is inclined to wonder whether the magnolia which we now know as *M. cylindrica* might in fact be a hybrid from it, especially in view of its much larger leaves than those of the Kew herbarium specimen referred to.

The flowers, usually scentless in the daytime, are about 4 in. (10cm) from base to apex and are composed of nine tepals, the three outermost being much reduced to form a brown, papery, false "calyx" which persists beneath the six creamy white floral tepals. These have pink blotches externally at their bases, this colouring becoming more conspicuous during dull weather or when flowering material is cut and kept in subdued light. The flowers retain their cylindrical form and erect poise up to the time of fading. However it was not the shape of the flowers but the form of the immature fruits which prompted Rehder and Wilson to name it *M. cylindrica*.

In September 1970, I went to see Gus Krossa's former garden at Livonia, Michigan, where there are two trees of *M. cylindrica*, raised from seed imported from the Lu-Shan Botanical Garden in 1936. Both trees were of erect, compact habit, the larger being some 30 ft. (9m) tall by about half as much in width, a remarkable contrast to the widely spreading habit of the younger grafted specimens in such Cornish gardens as Chyverton, Trewithen and Trengwainton.

According to the late George Johnstone's records the grafted plant of *M. cylindrica* on the south-east lawn of Trewithen was planted in 1952. There is no record of the stock upon which it was grafted, but it appears to have made relatively slow growth for it had reached a height of only 18 feet when twenty years old. The plant is recorded as having come "from Hilliers of Winchester who obtained scions from a small nurseryman in Western America, who obtained it from Mrs Henry", (presumably of Gladwyne, Pennsylvania, where her daughter Josephine is now President of the Henry Foundation for Botanical Research). Miss Henry tells me that the Gladwyne records concerning *M. cylindrica* and its distribution have not been catalogued. Brian Mulligan, Director of the University of Washington Arboretum at Seattle, tells me that their plant of *M. cylindrica* came from Fairman Furness of Upper Bank Nurseries, Media, Pennsylvania, in May 1949. It first flowered there ten years later, in March 1959, so it was probably a seedling.

In a letter to Mr Mulligan, dated 15 December, 1958, Mr Furness wrote: "The one we have here has flowered now for a number of years. I was quite excited the first spring I saw that it was going to do so, but when it did, I was disappointed. It seemed to me very like *M. kobus*. I do not remember the number of petals, but the size and effect were similar, and from the horticultural point of view it did not seem to offer as much as a good *M. kobus*."

"I got it from Mrs Norman Henry, who got the seed from the Arboretum at Lu-Shan, China, before the last war. It may not be true, but as I do not know what *M. cylindrica* should look like, I did not know what to expect."

From the above description it seems that the magnolia, which Mr Furness retained, bore flowers inferior to the grafted trees which I have described from observations made in Cornish gardens. Whatever its ultimate identification the horizontally branched form is a most desirable magnolia, which carries its vertically-poised blossoms at a low level where their beauty can be observed at close quarters, without having to gaze upwards towards a bright April sky.

OBITUARY

Mrs Lionel de Rothschild

Marie Louise de Rothschild died on the 17 May 1975 at the age of 83. On a beautiful spring day she was buried, at her expressed wish, in her beloved village of Exbury.

It was here that she had spent so many happy hours in the garden created by her husband Lionel. From the beginning she truly loved these gardens, and it is my opinion that after her husband's death in 1942 her love deepened into a determination to carry on Lionel's work as a lasting memorial to his great achievements in horticulture.

My wife and I have had the joy and privilege of knowing her intimately for thirty years, and not only did we grow to know and love her, but also to rely upon her unusual instinctive quality of judgement in many different facets of life. Her immense charm and warmth made people feel immediately at ease with her, and she had the gift of allowing them to think aloud to her, never giving advice or opinions, but helping them to continue and extend their train of thought. Perhaps because of this, and also her calm uninterfering attitude, she had the rare distinction of being a mother who was always in demand by her two sons and two daughters. She had her own establishment at Exbury, but her company was always sought at the homes of her children, Rosemary, Edmund, Naomi and Leopold. To them a party of any sort was incomplete without the presence of "Ma", and their friends all adored "Mariloo".

I can cast my mind back to my early days at Exbury when she decided that I must learn all about the rhododendron collection. She took me into the Exbury Gardens literally morning, noon and night – sometimes we would come away in an open car with the headlights on. By the end of the first flowering season I did not know whether I was beginning to be interested, or whether I hated rhododendrons! In the end, she instilled into me the rhododendron bug, and I have loved them ever since. It was quite common for us to spend four or five hours each day at the weekends walking the gardens and discovering rhododendrons we had never seen before. For all this I owe to her a deep debt of gratitude.

She delighted in the passing moods of the woods, be it a shaft of sunlight on the pink bark of a Scots pine or in the great luminous orb of 'Fortune'. Though she claimed no horticultural expertise, she had an instinctive feeling for flowers of quality, and if she found that you too had this feeling (which she very quickly discovered) you won your way to her affections.

She used to tell me innumerable and fascinating stories of the gardening weekends at Exbury in the years between the wars, when not only great gardeners were invited, but also leading men and women of the time. In her later years, she was quite content to walk the gardens

Fig. 11

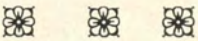
Mrs Lionel de Rothschild

quietly and learn more and more about her beloved rhododendrons. Her experience and knowledge were put to use by the Royal Horticultural Society when they invited her to sit on the Rhododendron Committee, which I know gave her immense pleasure.

She will be missed not only by her family and all of us at Exbury, but also by her many friends not the least of whom will be those in the Royal Horticultural Society.

P. N. B.

Exbury, 1st July 1975.



The Rhododendron Competition

11 and 12 March, 1975

ANN MAGOR

In 1974, we had the wettest summer and autumn for many years, which resulted in many plants, notably camellias, being unable to ripen their wood, and may perhaps explain why they have been rather disappointing this year. We then enjoyed, or for those of us in the west of England tolerated, a mild and very wet winter, so that rhododendrons flowered at Christmas, some species flowering as much as two months before their usual time. This peculiar season resulted in very sparse entries in the rhododendron competition, notable absentees being Bodnant and Exbury, which was very disappointing.

R. macabeanum showed its sterling qualities both as a garden plant and on the show bench, when it was exhibited in every class for which it was eligible. In the class for any species of the Grande series, four *R. macabeanum* were shown, all differing slightly from each other, mainly in the depth of colour, except the form shown by General Harrison, which had a very pronounced frill to its corolla, and the unopened bells were tinged orange. A magnificent spray of *R. macabeanum* was the only entry in the class for a spray of any species, exhibited by the Countess of Rosse. Having taken the first prizes in the two forementioned classes, *macabeanum* went on to win the class for a truss of any species, the only other species exhibited in this class was *R. erubescens*.

Two Cornish gardens competed against each other in the class for four species. Trewithen showing a deep yellow *R. macabeanum*, a compact truss of a deep red *R. strigillosum*, *R. arboreum* f. *roseum*, and an early truss of *R. johnstoneanum*, narrowly beat Lamellen's more uniform exhibit of *R. arboreum cinnamomeum*, *R. erubescens*, *R. irroratum*, and an unusual form of *R. grande*. *R. strigillosum* was also shown in the class for any species of the Barbatum series, to win from *R. glischroides*. A very nice form of *R. oreodoxa* shown by Hon. Edward and Mrs Boscawen, won from *R. sutchuenense* in the class for any species of the Fortunei series.

R. parmulatum, an unusual member of the Neriiflorum series, with creamy yellow flowers copiously spotted inside the throat with deep plum coloured spots in its best forms, was exhibited by General Harrison, in the class for any member of the Neriiflorum series. The only class, which can really be said to have been competitive, was the class for a spray of any Lepidote species, attracting eight entries, and it must have been a difficult class to judge, if only for the variety it attracted. Sir Giles Loder's *R. glaucophyllum* var. *luteiflorum* was very striking, for its depth of colour and show condition, which was perfect, a deep coloured *R. cuneatum* from Nymans was also very attractive, but finally *R. pemakoense* from High Beeches won; also of interest was a very fine yellow *R. lutescens*, which I believe is the Exbury

F.C.C. form, and *R. siderophyllum*, an uncommon member of the Triflorum series.

A spray of *R. tanastylum*, an attractive member of the Irroratum series, with a neat scarlet truss, with paler linear markings on the corollas, won the class for a spray or truss of a species not included in any series otherwise catered for; a very dark truss of *R. ramsdenianum* was also shown in this class. The last species class, for those grown under glass, was won by *R. cubittii*, from the very pretty spider-like yellow *R. christianae*, the only representative of the Malesian rhododendrons in the show, with *R. scopulorum* placed third.

The reds seemed to dominate the hybrid classes, which perhaps gave an impression that these classes were better filled than the species classes. The class for four hybrids only attracted two entries, and was won by Tremeer, showing 'Red Admiral', 'Diane', 'Joan Scobie', and a very nice truss of a *R. barbatum* cross. Major Magor had amongst his four, his very attractive 'Dicharb' with large orange bells and enlarged calyx and 'Arbad'. Three magnificent sprays were shown in the class for a spray of any hybrid, in which General Harrison took first and second prize with his 'Diane' and 'Maestro', the latter was later awarded an A.M.; 'Nestor', the A.M. form of the splendid old hybrid Shilsonii, was third. Lamellen's 'Lacs', won the class for a truss of any hybrid, from Leonardslee's 'Loki' and 'Shilsonii Nestor' from High Beeches. *R. arboreum* × 'Cornubia' won the class for a hybrid of which one parent is a species of the Arboreum series, from a very attractive pink 'Mrs Henry Shilson', with 'Hermione' third. The class for any

hybrid of which one parent is a species of the Barbatum or Thomsonii series, attracted seven entries, the Countess of Rosse's 'Shilsonii' narrowly beat Mr Strauss's 'Shilsonii' with Tremeer's 'Diane' third and Lamellen's 'Campirr' fourth. 'Chink' won the class for a spray of any Lepidote hybrid; 'Bo-peep' was second and a very attractive 'Seta' was third. 'Goldfinger', when shown by Sir Giles Loder, was the only entry for a spray of a tender species or hybrid grown under glass; pale yellow in colour with conspicuous dark scales on the outside of the bells, this very floriferous spray really caught the eye. Mr K. Blundell was the only exhibitor in class 24; his very nice plant of 'Seta' won from his attractive white azalea 'Kure-no-yuki'.

The Rhododendron Show

29–30 April, 1975

I – SPECIES

In 1975, the Rhododendron Show was a triumph of gardens over weather. Exhibits in the main were below the high standard set by previous years, with two notable exceptions in the hybrid section. It was nice to see exhibits from Borde Hill in the competitive classes, after an absence of some years, but very disappointing that such treasures as *R. lacteum*, *R. nakotiltum* and *R. phaeochrysum* from Scotland were absent.

Exbury appropriately won the Lionel de Rothschild Challenge Cup for eight species, with Bodnant second, showing a greater variation in their exhibit, which included *R. lanatum*, *R. exasperatum*, *R. diphrocalyx* and *R. pogonostylum*. General Harrison's trusses of *R. macabeanum*, *R. sinogrande* and *R. yakushimanum* won the class for three species; also being shown was a very dark *R. gymnocarpum*. Mrs Norman Colville won the restricted entry class for three species with a very fine dark form of *R. arizelum*, *R. morii* and her excellent form of *R. thomsonii*. Brodick and the National Trust for Scotland swept the board in the class for a truss of any species, taking the first three places, with *R. delavayi*, *R. sinogrande* and *R. basilicum*; this was a well supported class, with fifteen entries. The Roza Stevenson Challenge Cup for a spray or branch of any species was won by a very deep yellow *R. melinanthum* KW 406 of the Trichocladum Series, shown by Borde Hill, with Brodick's spray of *R. cubittii* second; also shown were *R. sperabile* var. *weihsiense*, *R. uvarifolium* and *R. aberconwayi*.

The Countess of Rosse and the National Trust, showing a large, deep pink unspotted form of *R. arboreum* var. *roseum*, won the Arboreum class from Exbury's red form. *R. delavayi* from Brodick beat Mr Urlwin-Smith's *R. niveum*, to win the class for any species of the Arboreum series other than *arboreum* or its sub-series. General Harrison's *R. morii* won the class for any species of the Barbatum series from a very nice truss of *R. habrotrichum* F. 9048, from Borde Hill. *R. sulfureum* shown by Bodnant won the class for a spray of any species in the Boothii series, from *R. auritum* KW 6278 from Borde

Hill. The class for any species of the Campanulatum series was won by *R. campanulatum* 'Knaphill', shown by Lea Rhododendron Gardens, with Bodnant's *R. wallichii* in second place and Major Hardy's white form of *R. campanulatum* third. There were only two entries in the class for a truss of *R. fictolacteum* or *rex*, which was easily won by Miss Godman of South Lodge, showing a very large and perfect truss of *R. rex*. In the next class, for any species of the Falconeri series, other than *rex* or *fictolacteum*, *R. arizelum* from Nymans, narrowly beat a very attractive dark form of *R. hodgsonii* as shown by Major Hardy. Any species of the Fulvum series, was won by a very nice clear coloured form of *R. uvarifolium* with a deep basal blotch, shown by Miss Godman. There were nine entries in the class for any species of the Grande series, which was won by a very attractive pink *R. mollyanum* from Borde Hill under the number KW 6261, with an attractive sugar pink *R. magnificum* with glistening pale green stigmas from Nymans. Any species of the Irroratum series attracted nine entries, and was won by Major Hardy's *R. laxiflorum*, from Sir Giles Loder's magenta flowered *R. anthosphaerum* ssp. *hylothreptum*, with *R. aberconwayi* shown by Mrs Alison Johnstone third; also shown were *R. hardingii*, *R. lukiangense* and *R. pogonostylum*. *R. dryophyllum*, with a very nice rosette of leaves shown by Exbury, won the class for any species of the Lacteum series, from Borde Hill's very small truss of *R. phaeochrysum*.

Sir Giles Loder's superb truss of *R. lindleyi*, with rather small foliage, but enormous trumpet flowers won the class for any species of the Megacalyx sub-series from Brodick's *R. taggianum*; Major Hardy showed a very attractive soft yellow truss of *R. dalhousiae* with the number TSS 32. Mr Geoffrey Gorer's *R. iteophyllum* won the class for any species of the Maddenii series other than one of the Megacalyx sub-series; Major Hardy's *R. burmanicum* with the number KW 21721 was second. Mrs Colville showed a very dark waxy red form of *R. beanianum* to win the class for any species of the Haematodes sub-series, from Lord Aberconway's *R. pocophorum*. There were only three exhibits in class 25, for any species of the Ponticum series, which was won by Mr Gorer's *R. metternichii*. *R. wasonii* was the sole representative in class 26 for members of the Taliense sub-series Roxieanum or Wasonii; rather pale in colour, but with a really beautiful deep rust-coloured indumentum. In class 27, Borde Hill showed *R. taliense*, with which they won the class, and *R. vellereum* KW 5656; Bodnant's *R. balfourianum* var. *aganniphoides* was second. Only two sprays of *R. campylocarpum* were shown in class 28, a very pretty clear yellow form from Leonardslee won the class from an attractive apricot form with a dark blotch from Exbury. Three sprays of *R. caloxanthum* competed in class 29, which was won by Mr Strauss's clear yellow form, from a spotted form from Nymans. The Selense sub-series were represented by a delightful spray of *R. jucundum* with the number F. 27375 from Borde Hill, and a dainty spray of the pink form of *R. martinianum* shown by the Countess of Rosse. It is remarkable how variable *R. thomsonii* can be, and class 33 attracted a wide variety of forms; Mr Gorer's *R. thomsonii* won the class from Mrs Colville's magnificent form which usually wins this class.

The Azalea series, represented in three classes, were less well supported than in previous years, with only three *R. schlippenbachii* in

class 34, which was won by a very pretty form from Leonardslee, with larger flowers and deeper in colour than the other two. Bodnant swept the board in class 35, taking the first three places with *R. albrechtii*, *R. reticulatum* and *R. vaseyi*.

Brodick showed an enchanting pink form of *R. primulaeflorum* var. *cephalanthoides* to win the Anthopogon class from a yellowy green *R. hypenanthum*. *R. pendulum*, an interesting member of the Edgeworthii series, was shown by Brodick to win class 39. Class 40 for any species of the Glaucophyllum series, attracted twelve entries; Bodnant winning with *R. tsangpoense* var. *pruniflorum*, from Sir Giles Loder's *R. glaucophyllum*, and *R. glaucophyllum* var. *tubiforme* shown by Mr Strauss.

R. rubiginosum, shown by Hon. H. E. Boscawen, won class 41, from a very pale *R. desquamatum* F.26482. Class 42 for Lapponicums was won by Mrs Potter's very dark *R. russatum*, from *R. impeditum* and Sir Giles Loder's *R. stictophyllum*. Class 43 for the Lepidotum and Uniflorum series, was solely represented by Major Hardy's *R. uniflorum*. Class 44 was won by the Countess of Rosse, with a dark form of *R. calostrotum*, with Lord Aberconway's form second, and *R. saluenense* also from Nymans third. Class 45 for *R. racemosum* in all its many forms was won by Lord Aberconway, with a very attractive form with a dark pink capitate head shown by Hydon Nurseries in second place. Miss Godman's very good coloured *R. spinuliferum* won class 46 from *R. spiciferum* from Nymans, and a paler form of *R. spinuliferum* from Brodick. The brilliant yellow *R. melinanthum* looked quite superb in class 47, where it won its second prize of the day.

There were fewer sprays of *R. augustinii* shown this year in class 48, which was won by a large spray from Bodnant. My personal preference is for an *augustinii* with a "green eye", of which there were two being shown, Mrs Potter's form gaining second prize, from a paler form from Leonardslee; Borde Hill showed an aggressively dark form of the species.

Class 52 attracted seven entries, mostly *R. davidsonianum* in several forms, and was won by a very good clear deep pink form shown by Mrs Johnstone; also shown was the little grown, attractive white *R. longistylum* W4726 from Borde Hill, and *R. tatsiense* from the High Beeches. Class 53 was won by *R. hanceanum* var. *nanum*, from *R. virgatum* with the number L & S 21282, with pale pink tubular flowers with a green base. Class 54 for any species grown under glass, gave us all a wonderfully colourful spectacle of some of the Malesian species. Sir Giles Loder's *R. christianae*, with long orange-yellow tubular flowers, won the class from Mr Gorer's quite beautiful clear orange *R. maxwellii* collected by Michael Black 304; Mr Gorer also showed *R. jasminiflorum* B 390 which was pinker than the form showed by Sir Giles Loder; *R. beyerinckianum* with pendulous dark red flowers was shown by Brodick.

II — HYBRIDS

The difficulties caused by the weather and with which exhibitors had to contend, were perhaps more apparent in the classes for hybrids. None the less these classes presented a lovely spectacle and only a

disgruntled purist would offer criticism of defects over which exhibitors had no control. There were five entries in Class 61 for eight hybrids. The Hon. Edward Boscawen was first with among his entries 'Sir George Sansom', an attractive pure white (*irroratum* × Loderi) and the interesting 'Little Jessica' which is considered to be a *R. hogdsonii* cross. There was a very fine rich red among the entries from Bodnant labelled *arboreum* var. *nepalense* × *griersonianum*. We noted a number of pleasing yellows and creams; General Harrison's 'Crest', a really good truss, and creamy-white 'Diane', and Lea Rhododendron Gardens' delicate yellow 'Prelude'. Exbury included a truss of 'Susan' which is surely one of the best bluish-mauves. In the next class for three hybrids Mr M. Cripps of Ewhurst was first and included the aptly named 'Apple Blossom' and, although the Earl of Stair's entry was unplaced, we could not but note his excellent 'Colonel Rogers'. In Class 63 which excludes winners since 1971 of a prize in Classes 61 or 62 Mr H. P. Granlund of Balcombe, Sussex was first with a good truss of the rich pink 'Luscombei'. Major Hardy in Class 65, which carries with it the Loder Challenge Cup, gave us great pleasure with his truss of the white, purple blotched 'Calfort' which also had particularly nice foliage. Two other entries were impressive, the sealing wax red 'Ramillies' × 'Chiron' from Bodnant and the Hydon Nurseries' 'Caroline de Zoete' whose pink buds open to white bell-shaped flowers. This attractive hybrid received the Award of Merit on the same day. Class 66 for trusses of six hybrids raised by or in the garden of the exhibitor and carrying with it The Crosfield Challenge Cup was won by Lord Aberconway. Once again 'Ramillies' × 'Chiron' was most impressive. Second prize went to Mr E. de Rothschild whose exhibit included a fine truss of 'Lionel's Triumph'. Lord Aberconway was again first in Class 67 for sprays of three hybrids raised by or in the garden of the exhibitor. His spray 'Elizabeth' was the finest in the class.

In Class 68 for a hybrid of which one parent is a species of the Arboreum series, The British American Tobacco Company Ltd., Nutley, Surrey was first with a truss of a frilly edged form of 'Cornubia', and Mr Cripps showed an attractive truss of 'Loder's White'. In Class 69 for Loderi, Sir Giles Loder's 'King George' was top of the class.

Mrs A. M. Hooton of Chorley Wood, Herts. took the first prize in Class 70 in which one parent should be *R. griffithianum* and other any species except *R. fortunei* or *R. campylocarpum*. Her entry was 'Cornish Cross' with large pink bells. 'Naomi Paris' from Exbury was first in Class 73, which is for a hybrid of the Fortunei series not provided for in Classes 69-72. We were in fact more impressed by Major A. E. Hardy's pure white 'Calfort' with a bold dark purple blotch. In Class 74 the Hydon Nurseries' 'Huntsman' was first, the only red in a class of *campylocarpum* or *souliei* hybrids other than 'Penjerrick' or 'Mrs Randall Davidson'. Two nice trusses of the brilliant red 'David' took the first and third prizes for Mr M. Cripps and Mrs A. H. Potter respectively in Class 75 for hybrids of the Neriiflorum series, with a truss of the very desirable 'Choremia' from Bodnant second. Mr H. P. Granlund in Class 76 for a hybrid of which one parent is *R. thomsonii* was first with a good truss of the rose-pink 'Luscombei' raised as long ago

as 1880. The entries in Class 77, in which one parent is a species of any of the Thomsonii sub-series other than *R. thomsonii* itself, were all 'Queen of Hearts', one of the most distinctive of dark red-flowered hybrids. Mr Geoffrey Gorer's truss took the first prize. In Class 79 for a hybrid, of which one parent is *R. griersonianum*, the very big bells of Mr R. Strauss's 'Laura Aberconway' ensured him the first place. The second prize went to an even more brilliant red, Major Hardy's 'Kharkov'.

Hybrids of species of the Lacteum series are provided for in Class 80. While a good form of *R. lacteum* is almost as perfect a yellow as one could wish for in a rhododendron, it seems most reluctant to pass on that same yellow to its offspring. The results are generally creamy rather than canary yellow, lovely though they may be. Mr Geoffrey Gorer's 'Sir George Sansom' was first, marred only by the effect of the weather on its foliage; General Harrison's 'Robert Keir' was second. Although unplaced, *R. lacteum* × *R. wardii* from Exbury had attractive waxy white flowers and is well worth watching. Class 82 is for hybrids of which one parent is of the Cinnabarinum series. There are three classic hybrids of such parentage; 'Lady Rosebery', a truss of which from Leonardslee was first; 'Lady Chamberlain' from Exbury, which was in the second place, and 'Alison Johnstone' from Trewithen was third. Like the other two crosses 'Alison Johnstone' varies in colour and the truss from Trewithen was pinker than several other entries.

Class 83 is for hybrids of the tender Maddenii and Edgeworthii series and we were not disappointed in the winner of the first prize, 'Mi Amor' from The National Trust for Scotland, Brodick Castle, with enormous bells, which also received an A.M. It is sweet scented, and a prominent pale green calyx enhanced the white flowers which are stained yellow at the base; *R. lindleyi* × *R. nuttallii*, it was raised in California. The second prize went to a good yellow *R. burmanicum* hybrid also from Brodick and, although Mrs Colville's *R. edgworthii* × *R. moupinense* was unplaced, it showed undoubted promise.

Class 84 for hybrids between the Triflorum series and a species of the Lapponicum series might just as well be called the "blue class". Not surprisingly General Harrison's 'Saint Breward' was first and there were two other good blues in Mrs Potter's 'Augfast' and Mrs Colville's 'Penheale Blue'. 'Eleanore' from Exbury was first in Class 85, which is for a hybrid between a species of the Triflorum series and a species of any other series but the Lapponicum series. We in fact preferred 'Remo', particularly the form showed by Mr R. Strauss. There were five entries in Class 86 for a spray of a hybrid of *R. forrestii* or *R. aperantum*, all of them 'Elizabeth' and all showing variation in colour and form. The first prize went to a vase full from Bodnant, which in every respect showed its superiority. Lea Rhododendron Gardens entered a really lovely 'Robin Hood' (*R. calophytum* × *R. sutchuenense*) in spite of poor foliage in Class 88 which is one of those classes which caters for hybrids which do not fit in elsewhere. We may not consider Derbyshire an ideal county for larger-leaved rhododendrons but Lea Rhododendron Gardens frequently show us exceptions. Although outclassed by the Loderis in Class 91 for any hybrid, Major Magor and Mrs Peter-Hoblyn showed that the original 'Damaris'

(1926) remains one of the really good yellow hybrids, easy going and without the temperament of some other highly strung yellows. The A.M. clone 'Logan Damaris' (1948), made independently in Scotland, has a better truss.

For a hybrid grown under glass in Class 92 Mr Geoffrey Gorer with a sure eye for a winner chose the *javanicum* hybrid 'Baroness Henry Schroeder' raised in 1883, a pleasing change from the hybrids of today. In Class 93 for any hybrid, Mrs P. Eunson of Chorleywood won the first prize with a spray of 'Susan' (*campanulatum* × *fortunei*), a hybrid that was raised in Cornwall, where it is well known that 'Susan' has a black eye, not the result of any physical violence, but due to parental differences, and the form without the black eye should have been registered as 'Lavender'.

The Hydon Nurseries were first in Class 102 for a dwarf rhododendron with a lovely *R. uniflorum*, while Mr Urlwin-Smith, who took the second prize, showed a fine plant of *R. glaucophyllum* var. *luteiflorum*. Mr Urlwin-Smith was first in Class 103 for an evergreen rhododendron not exceeding 4 feet in width or height with *R. racemosum* F 19404. This dwarf form of *R. racemosum* is perhaps only rivalled as a plant for the rock garden by Dr Rock's introduction which is known as *R. racemosum* 'Rock Rose'. Messrs K. & S. M. Blundell of London SW6, who took the third prize in the previous class with their plant of 'Betty', went one better and took the second prize with 'Bo-peep', a creditable achievement in view of the weather. In the Class for leaves (No. 105) the winners were Nymans Gardens but it was perhaps Exbury's *R. bureavii* (in the second place) which caused great interest.

J.W.O.P.; E.A.M.M.

The Camellia Competition

11 and 12 March, 1975

GEORGE AYLING

For camellia enthusiasts there is always something special about the third show of the year at the R.H.S. Hall. To be sure, there have been excellent displays on trade stands at the two previous shows, but this time it is up to us, the people who buy and grow them, to show what we can do, and so from great gardens with ranges of greenhouses and from the smaller erections behind suburban houses we bring our flowers to vie with our friends whom we meet every year on this occasion. "Friends" is the correct description because I have never known any other show where competitors assist each other to the extent that they do at this one. In spite of this, competition is always close and fierce and this year was no exception.

Mr Strauss of Ardingly won Class 1 for a white *japonica* with 'Rogetsu' and Class 2 for a self-bloom with a very brilliantly coloured 'Sylva'. Class 5 for 'Drama Girl' was won by Sir Giles Loder, whose flower was

exceptionally well-coloured, a character that I have noted on previous occasions. Sir Giles was also first in Class 6 for a bloom of another American giant 'Mrs D. W. Davis'. Class 7 for a bloom of any semi-double white cultivar is always difficult, partly owing to transport problems but here there were nine entries, and such was the quality that four prizes were given, the first to Dr James Smart for 'White Nun', the second and third to Mr R. H. Ellis for 'Haku Rakuten' and 'Mrs Bisschop' respectively and the fourth to Sir Giles Loder for 'The Pilgrim'.

Classes 11 to 14 were for anemone- or paeony-formed cultivars and entries were variable. The biggest competition was in Class 12 for a self-bloom, won by 'Grand Slam' for Mr Strauss. Among the classes for rose-formed and formal double cultivars, Class 16 was won by the Duke of Devonshire with 'Mathotiana'. I have never seen a flower of 'Mathotiana' from any other source which gives the depth and richness of colour which this one does. Second was Dr Smart with a very beautiful flower of unknown name, third was 'Souvenir de Bahuaud Litou' and fourth 'Mathotiana Rosea' both from Mr R. H. Ellis. Class 19 calling for any six cultivars of *C. japonica*, one bloom of each, is for me *the* class of the Competition. There were seven entries this year. Dr Smart won with 'Coronation', 'Grand Slam', 'Mrs D. W. Davis', 'R. L. Wheeler', 'White Nun', and 'Drama Girl'. Second came Sir Giles Loder with 'Pauline Winchester', 'Scentsation' (surely the largest ever seen), 'Drama Girl', 'Gladys Wannamaker', 'Tomorrow Park Hill', and 'Magic City'. The third placed entry, again from Sir Giles Loder, consisted of 'Red Elephant', 'Adolphe Audusson Special', 'Laurie Bray', 'Mrs D. W. Davis', 'R. L. Wheeler' and 'Mathotiana Supreme'. A fourth prize was awarded to Mr Strauss for 'Grand Prix', 'Spring Fever', 'R. L. Wheeler', 'Onetia Holland', 'Coquetti' and 'Hawaii'.

Competition was less keen in the remaining classes for camellias other than *japonica*, and for hybrids, although there were some excellent entries, such as Dr Smart's first prize in Class 27 of *C. tsaii* a beautiful dainty thing. In Class 24 for a *reticulata* other than the wild single form or 'Captain Rawes' Mr Strauss won first prize with 'Red Emperor', but Sir Giles Loder then cleared the remaining prizes with 'Noble Pearl' (2nd), 'Butterfly Wings' (3rd), and 'Crimson Robe' (4th).

The first prize-winning blooms in the × *williamsii* classes were 'Mary Christian', 'Donation' and 'Bonnie Marie'. 'Barbara Hillier' won the class for a single flowered hybrid with *C. reticulata* as one parent. In Class 32 for a double flowered hybrid of *C. reticulata*, Mrs Potter of Virginia Water was first with 'Francie L'; four prizes were awarded in this class. Both classes for any hybrid (one or three blooms) were well supported. Dr Smart won the single bloom class (which had 14 entries) with 'Elsie Jury' and Mr Strauss the three-bloom class (7 entries) with 'Howard Asper', 'Elsie Jury' and 'Francie L'.

It was a good Competition and it filled one side of the Hall with colour. Some classes did not attract as many entries as might have been hoped for, but the quality was very high, as evidenced by the unusually high number of fourth prizes awarded. The judges and stewards did an excellent job as usual and the verdict of the competitors seems to have been "Everybody happy!".

The Camellia Show 1975

(for camellias grown in the open only)
15th-16th April 1975

I suppose that it could be assumed that, whereas the Competition could be regarded as an appetizer, the Camellia Show proper is the main course. Unfortunately this is not always the case because the majority of the exhibits in the Competition are grown under glass where conditions are artificial, while those in the Show are at the mercy of our weather. The year 1975 will be remembered as the year in which Jupiter Pluvius did his worst for camellias grown outside. First we had exceptionally mild weather which brought everything into growth about six weeks earlier than usual; we had camellias in bloom outside in advance of those under glass; then at the normal blooming season everything changed. We had strong cold winds, cold rain and even colder frost, 4°F. being recorded here on the Thursday night preceding the week of the Show after the entries had been sent in. Of course the result was disastrous. Intending exhibitors had to cancel most or all of their entries and, of the eighty classes in the schedule, many had only one or two exhibits and some none at all. The position would have been even worse but for the exhibits from favoured Cornwall. The judges evidently recognised the difficulties and felt that exhibitors should be rewarded for their enterprise with a generous allocation of prizes.

Because of this it is not proposed to give a full list of prizewinners and classes, but I would mention that Class 17 for a semi-double self

coloured bloom of a *C. japonica* cultivar and Class 23 for an anemone- or paeony-formed self coloured bloom of a *C. japonica* received most support, while in the hybrids, Class 42 for a bloom of a single cultivar of × *williamsii* with eight blooms had the highest number of the whole show. Even with these reduced numbers however, there was much of interest and many good flowers. There was for instance, the bloom of 'Canon Boscawen' shown by the Hon. E. Boscawen in Class 22, a lovely white paeony shaped *japonica* which won first prize; it was the only exhibit, but it would probably have won in any company. Another thing to be noted was the number of blooms of American raised cultivars which were to be seen, including 'Reg Ragland', 'Sunset Glory', 'J. J. Whitfield', 'Guilio Nuccio' and most surprising of all, 'Drama Girl'. It is more usual for these to be shown from under glass. In the classes for hybrids too there were 'Brigadoon', 'Bonnie Marie', 'William Hertrich' and also those from New Zealand, 'Debbie', 'Anticipation' and 'Grand Jury'.

I must mention Class 80, the last of all, which is for an arrangement of camellias, which I have always felt should receive support more in line with similar classes for other flowers. The quality is always there, but the numbers few. This year there were three exhibits. Mrs MacDonald was first with an all red pyramid of 'Adolphe Audusson', 'Dobrei' and 'Margharita Coleoni'. Second was Mrs A. Holland with a cornucopia style basket of blooms of 'Lady Clare' and 'Mary Christian' and third, Mrs A. Hooton with a table arrangement of blooms of × *williamsii* based on moss.

The principal prizewinners were General Harrison, the Hon. Edward Boscawen, Mrs MacDonald, Mr Strauss, Mr Pinney and Mrs Tame.

Camellias were well represented on the trade stands, as is usual on this occasion. Hilliers of Winchester, in a well filled stand, included *japonica* cultivars, 'Sabrina', 'Purple Emperor', 'James Allen' a striking red paeony form flower, the well known 'Elegans', 'Mars', 'Nagasaki', 'Lady Vansittart', 'Mrs V. Bisschop', and a plant of 'Hana Fuki' which had the best flower of that cultivar I have ever seen. James Trehane & Sons had an exhibit of plants in large pots, mostly × *williamsii* hybrids including several new Australian cultivars and Messrs R. L. Russell showed 'Eximia', 'Adolphe Audusson', 'Elegans', 'L'Avenir' and 'Lady Mackinnon'. Sir Giles Loder had a separate stand of blooms grown under glass at Leonardslee. No less than one hundred and six cultivars were represented on the twin slopes of this, and any one of these might have been worthy of a prize at the earlier competition. Space forbids a list of all of these but I noticed especially two higo cultivars with beautiful stamens, 'Yamato Nishiki' and 'Showa-no-Hikari', and 'Edelweiss', a lovely white. 'Noble Pearl', a huge *reticulata*, 'Grand Jury' and a rarely seen British raised *reticulata* hybrid 'Exaltation'. Miniatures such as 'Bob's Tinsie', 'Mansize', 'Fircone', and 'Little Bit' were also included.

To end on a happy note, 1975 may well be remembered not for its adverse weather but as the year when the International Camellia Society emerged as an active exhibitor. At the Competition there was a stand put up by this Society which displayed single blooms, pot plants and some excellent sprays of *reticulata* 'Lion Head' and 'Red

Emperor'. With the exception of the pot plants lent by James Trehane & Sons, the rest were spares brought in by Competition exhibitors. The whole effect was pleasing to the eye and attracted much attention, but there were, as might be expected at a first attempt, sundry teething troubles. At the Show however, the Society did the thing properly. The exhibit was thirty feet long, in three sections. At each end there was a moss covered slope rising from the usual bench height to seven or eight feet, massed at the back by a display of foliage of camellia species, some of them rare, *C. hongkongensis*, for instance. One-third of the way from each end there was a tall pyramid composed of sprays of hybrids in flower, mostly × *williamsii*. The centre was composed of a steep slope coming down to a flat area covered with velvet, and bearing a huge glass tray and two silver dishes each containing an arrangement of pink blooms. On the steep slope were arranged single blooms grown under glass, these being given by the Duke of Devonshire, Sir Giles Loder and Dr James Smart. These were all of fine quality but were matched by the blooms on the side sections, although these were all grown in the open. The explanation of this is that these blooms were flown specially for the occasion from countries where the climate permits such luxury. From U.S.A. came flowers sent by Mr Willard Goertz of San Marino, California, others from the Society of the Potomac Valley and some from Washington D.C. It was unfortunate that boxes of blooms sent by the Northern California Research Committee did not arrive until late in the first day of the Show and could not be included. Again the full list of cultivars would take too long but we did have our first sight of three *reticulata* hybrids of which much more will probably be seen in future: 'Dr Clifford Parks', a beautiful red, 'Lasca Beauty', pink, and a deep crimson, 'Nuccio's Ruby'. There was also 'Angel Wings' a very pretty × *williamsii* hybrid. It is early in the camellia season in Australia but some fine flowers came from there including a nearly mauve 'Harmonius', a very dainty little formal double 'High Jinks' and two blooms of 'Emmett Pfingstl' very gaily striped in almost mauve and white. This variety seems to lose its stripes over here and another difference was noticeable in 'Easter Morn' which over here is a large pink double, whereas the bloom from "down under" was a large mauve pink paeony-formed flower. I wonder if these differences were the result of chemical treatment to secure early blooms? From Japan came blooms of higo cultivars and one which was specially noteworthy was a red flower with very long flared golden stamens called 'Onzeki'. Other flowers came from France and Jersey, but these showed more evidence of weather similar to our own. The exhibit was honoured with the Gold Medal of the R.H.S. and great credit must be given to Dr James Smart who organized it on behalf of the International Camellia Society. The sight of all these wonderful blooms grown in the open prompted one lady to say with longing "If only camellias bloomed in June!"

Another feature of the 1975 Camellia Show was the presence of Professor E. G. Waterhouse from Sydney, Australia, the President of the International Camellia Society, who ten days later was received in audience by Her Majesty Queen Elizabeth the Queen Mother on his 94th birthday.

GEORGE AYLING

RHODODENDRON TRIALS AT WISLEY

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

1973

HARDY HYBRID RHODODENDRONS

'St. Tudy' (*augustinii* × *impeditum*). (Raised by Mr E. J. P. Magor of Lamellen; introduced and sent by Major General E. G. W. W. Harrison, Tremeer, St. Tudy, Bodmin, Cornwall.) **F.C.C.** May 8, 1973. Plant 4 ft. high, 4½ ft. spread, vigorous, upright, compact habit; very free-flowering; leaves 1 to 1½ in. long, ¼ to ½ in. wide, medium dark, dull green. Flower truss 3 in. diameter, 2½ in. deep, compact, dome-shaped, fourteen flowers per truss; corolla 1¾ in. diameter, 1 in. long, fully expanded funnel-shaped, margins very slightly waved, Violet-Blue Group 90C paling towards throat, some florets flushed with Purple Group 77B. Flowering from April 30, 1973. (A.M. 1960.) (102)

'Fernhill' ('Peregrine' × *R. yakushimanum*). (Raised, introduced and sent by The Crown Estate Commissioners, Crown Estate Office, The Great Park, Windsor, Berks.) **A.M.** May 29, 1973. Plant 3½ ft. high, 5½ ft. spread, vigorous, compact habit; free-flowering; leaves 3 to 5 in. long, 1¾ to 2¼ in. wide, medium dark, glossy green. Flower truss 7 in. diameter, 5 in. deep, fairly compact, globular-shaped, six to nine flowers per truss; corolla 3 in. diameter, 2¼ in. long, slightly campanulate to widely expanded funnel-shaped, white, flushed on outside along midribs with pale pink. Flowering from May 21, 1973. (213)

'C.I.S.' ('Loder's White' × 'Fabia'). (Raised by Mr Rudolph Henny; introduced by Glendoick Gardens Ltd., and sent by Mr E. H. M. Cox, Sandyhall, Glendoick, Perth.) **H.C.** May 29, 1973. Plant 5 ft. 10 in. high, 5 ft. spread, fairly vigorous, upright habit; very free-flowering; leaves 4 to 6 in. long, 1¾ to 2¼ in. wide, medium dark, dull green. Flower truss 6 in. diameter, 3 in. deep, fairly compact, globular-shaped, nine flowers per truss; corolla 2½ in. diameter, 2 in. long, expanded funnel-shaped, margins waved, Yellow Group 12D fading to white at margins, flushed, particularly on lower segments, with Red Group 48B with deeper veining, throat Red Group 46C at base, with slight brownish-orange speckling. Flowering from May 22, 1973. (242)

'Fred Rose' ('Gladys Swaythling' × *R. lacteum*). (Raised by Mr F. Rose, introduced and sent by The Sunningdale Nurseries Ltd., Windlesham, Surrey.) **H.C.** May 8, 1973. Plant 6 ft. high, 6 ft. spread, fairly vigorous, upright habit; free-flowering; leaves 3½ to 5 in. long, 1½ to 2½ in. wide, medium dark, dull green. Flower truss 6 in. diameter, 7 in. deep, compact, dome-shaped, ten flowers per truss; corolla 2½ in. diameter, 2¼ in. long, widely bell-shaped, margins slightly waved, Yellow Group 2C with spotting in throat of Red Group 53B. Flowering from April 29, 1973. (97)

EVERGREEN AZALEAS

'Bengal Beauty' ('Daimio' × *R. simsii*). (Raised, introduced and sent by Mr M. Haworth-Booth, Farrall Nurseries, Roundhurst, nr Haslemere, Surrey.) **F.C.C.** June 13, 1973. Plant 3¼ ft. high, 6 ft. spread, vigorous, compact habit; very free-flowering; leaves 1¾ to 2 in. long, ¾ in. wide, medium dark, fairly glossy green. Flower truss compact, three flowers per truss; corolla 2 in. diameter, 1½ in. long, widely expanded funnel-shaped, margins wavy, a colour near Red-Purple Group 67D lightly flushed and veined with Red-Purple Group 63B, slight speckling of pale reddish brown. Flowering from June 8, 1973. (A.M. 1966.) (57)

'Florida' (No. 37G1 × 'Vuyk's Scarlet'). (Raised and introduced by Messrs Vuyk van Nes, sent by Messrs Vuyk van Nes, Zijde, 17 Boskoop, Holland, and Messrs Knap Hill Nursery Ltd., Woking, Surrey.) **A.M.** May 29, 1973. Described *R.H.S. Proceedings*, Vol. 97, p. 17. (H.C. 1971.) Flowering from May 18, 1973. (20 and 67)

'Mahler' ('Vuyk's Rosy Red' × unnamed seedling). (Raised, introduced and sent by Messrs Vuyk van Nes.) **A.M.** May 29, 1973. Plant 2¼ ft. high, 3¼ ft. spread, vigorous, slightly spreading but compact habit; very free-flowering; leaves 1¾ in. long, ¾ in. wide, light, dull green. Flower truss 6 in. diameter, 3 in. deep, compact, globular-shaped; corolla 3 in. diameter, 1¾ in. long, fully expanded bell-shaped, margins smooth, a colour near Purple Group 78B tinged at margins with Red-Purple Group 72B, lower segments speckled with Red-Purple Group 59B. Flowering from May 26, 1973. (51)

'Midsummer Beauty' ('Kokinshita' × *R. indicum* var. 'Macranthum'). (Raised and sent by Mr M. Haworth-Booth.) **A.M.** June 13, 1973. Plant 2½ ft. high, 4½ ft. spread, vigorous, compact habit; very free-flowering; leaves 1 to 1¾ in. long, ¼ to ½ in. wide, medium to dark glossy green. Flower truss compact, two to four flowers per truss; corolla 2 in. diameter, 1½ in. long, widely expanded funnel-shaped, margins slightly waved. Red Group 50B with slight flush of Red Group 53C and slight speckling of dark red. Flowering from June 6, 1973. (64)

'Louise Dowdle' ((*R. mucronatum* × 'Vittata Fortunei') ♀ × 'Shinnyo-no-tsuki'). (Raised by Mr B. Y. Morrison and sent by Messrs James Trehane & Sons Ltd., Ham Lane, Longham, Wimborne, Dorset.) **H.C.** May 29, 1973. Plant 2 ft. high, 5 ft. spread, vigorous, spreading habit; very free-flowering; leaves 2 in. long, ¾ in. wide, light dull green. Flower truss compact, two flowers per truss; corolla 3¼ in. diameter, 2 in. long, fully expanded bell-shaped, margins waved, a colour slightly paler than Red-Purple Group 61C, spotted on lower segments with Red-Purple Group 60A. Flowering from May 28, 1973. (71)

'Louise Gable' (*R. indicum* × (*R. kaempferi* × *R. poukhanense*)). (Raised by Mr Joseph Gable and sent by Mr James S. Wells, 474 Nut Swamp Road, Red Bank, N.J., U.S.A. 07701.) **H.C.** May 29, 1973. Plant 1½ ft. high, 1¾ ft. spread, vigorous, compact habit; very free-flowering; leaves 2 in. long, ¾ in. wide, light glossy green. Flower truss 3 in. diameter, 2 in. deep, compact, four flowers per truss; corolla 2 in. diameter, 1½ in. long, expanded funnel-shaped, semi-double, margins slightly waved, Red Group 52C marked on midribs and spotted on lower segments with Red-Purple Group 61B. Flowering from May 21, 1973. (119)

'Pinkabelle' (*R. simsii* (hardiest form) × *R. kaempferi* var. 'Daimio'). (Raised and sent by Mr M. Haworth-Booth.) **H.C.** June 13, 1973. Plant 4½ ft. high, 4 ft. spread, vigorous, upright habit; free-flowering; leaves 1½ to 1¾ in. long, ½ to ¾ in. wide, medium dark, fairly glossy green. Flower truss compact, two to four flowers per truss; corolla 2½ in. diameter, 1½ in. long, widely expanded funnel-shaped, margins waved, Red-Purple Group 67D flushed and veined with Red-Purple Group 58C, heavily spotted dark red. Flowering from June 8, 1973. (112)

1974

HARDY HYBRID RHODODENDRONS

'Seven Stars' ('Sir Joseph Hooker' × *R. yakushimanum*). (Raised, introduced and sent by The Crown Estate Commissioners.) **F.C.C.** April 26, 1974. Plant 2½ ft. high, 3 ft. spread, vigorous, compact habit; very free-flowering; leaves 4 to 5 in. long, 1½ to 2 in. wide, dark dull green. Flower truss 6 in. diameter, 5 in. deep, compact, dome-shaped, 18 flowers per truss; corolla 2½ in. diameter, 2 in. long, campanulate, margins slightly waved, notched, very pale pink, almost white, tinged lightly on inside of corolla, and flushed more heavily on the outside, with Red-Purple Group 63B, buds Red-Purple Group 58B. Flowering from April 29, 1974. (H.C. 1965.) (142)

'Penheale Blue' (*R. concinnum* var. *pseudoyanthinum* × *R. russatum*). (Raised, introduced and sent by the late Lt.-Col. N. R. Colville, Penheale Manor, nr Launceston, Cornwall.) **A.M.** April 9, 1974. Plant 2¾ ft. high, 3¼ ft. spread, fairly vigorous and fairly compact habit; free to very free-flowering; leaves 1 to 1¾ in. long, ½ to 1 in. wide, dark glossy green. Flower truss 3 in. diameter, 1¾ in. deep, very compact, globular-shaped, 20 flowers per truss; corolla 1 in. diameter, ¾ in. long, fully expanded funnel-shaped, margins slightly waved, Violet-Blue Group 92A, flushed very lightly with Violet Group 84A. Flowering from March 29, 1974. (233)

(Azaleodendron) 'Ria Hardijzer' (*R. racemosum* × 'Hinodegiri'). (Raised by W. G. Hardijzer, introduced by P. W. Hardijzer, and sent by Willem Hardijzer & Co., The Nurseries Wilhelminalaan 53, Boskoop, Holland.) **A.M.** April 26, 1974. Described *R.H.S. Proceedings*, Vol. 94, p. 131. Flowering from April 16, 1974. (H.C. 1969.) (152)

'Sappho' (parentage unknown). (Sent by Knap Hill Nurseries Ltd., Woking, Surrey.) **A.M.** May 29, 1974. Plant 6½ ft. high, 7 ft. spread, vigorous, fairly upright habit; free to very free-flowering; leaves 5 in. long, 1½ in. wide, medium dull green. Flower truss 5½ in. diameter, 5½ in. deep, compact, dome-shaped, 14 flowers per truss; corolla 2 in. diameter, 1¾ in. long, fully expanded funnel-shaped, margins waved, white, with blotch and heavy speckling of Red-Purple Group 59B, dotted with black. Flowering from May 20, 1974. (57)

'Elisabeth Hobbie' ('Essex Scarlet' × *R. forrestii* var. *repens*). (Raised and introduced by Herr Dietrich Hobbie, sent by Mr P. A. Cox, Glendoick Gardens, Ltd.) **H.C.** May 9, 1974. Plant 26 in. high, 4 ft. spread, vigorous, upright and compact habit; free-flowering; leaves 2½ to 3½ in. long, 1¼ to 1¾ in. wide, dark dull green. Flower truss 4¾ to 5 in. diameter, 3 to 3½ in. deep, somewhat lax, flattened globular-shaped, 5 to 7 flowers per truss; corolla 2½ in. diameter, 1¾ in. long, funnel-shaped, margins slightly waved, a colour near Red Group 45C, with margins a colour near Red Group 46A, and with very faint dark red spotting on upper segments. Flowering from April 16, 1974. (258)

'Hydon Dawn' (*R. yakushimanum* × 'Springbok'). (Raised by Mr A. F. George; introduced and sent by Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey.) **H.C.** May 9, 1974. Plant 18 in. high, 2½ ft. spread, vigorous, upright and compact habit; very free-flowering; leaves 3¾ in. long, 4¼ in. wide, medium dark, fairly glossy green. Flower truss 6 in. diameter, 4 in. deep, compact, globular-shaped, 16 to 18 flowers per truss; corolla 3 in. diameter, 2 1/16 in. long, expanded funnel-shaped, margins slightly waved, a colour near Red-Purple Group 62A, with paler pink margins, and deepening to Red-Purple Group 58C in throat, reddish-brown spotting on upper segment. Flowering from May 5, 1974. (179)

'Pink Bountiful' (*R. williamsianum* × *R. linswegeanum*). (Raised by Herr Dietrich Hobbie; introduced by Le Feber & Co. Ltd., Boskoop, Holland, sent by Slocock Nurseries, Goldsworth, Woking, Surrey.) **H.C.** April 9, 1974. Plant 2½ ft. high, 3 ft. spread, vigorous, compact habit; very free-flowering; leaves 1½ to 2 in. long, ¾ to 1½ in. wide, medium dull green. Flower truss 4½ in. diameter, 3 in. deep, lax, globular-shaped, 7 flowers per truss; corolla 1½ in. diameter, 1½ in. long, campanulate-shaped, margins slightly waved, Red Group 53D paling towards centre of segments and in throat. Flowering from April 9, 1974. (231)

'Romy' (*R. inamorata* × 'Mrs J. Millais'). (Raised, introduced and sent by Mr E. G. Millais, Millais Nurseries, Churt, Farnham, Surrey.) **H.C.** June 13, 1974. Plant 2¾ ft. high, 4½ ft. spread, vigorous, compact habit; very free-flowering; leaves 3 in. long, 1½ in. wide, dark dull green. Flower truss 6½ in. diameter, 5 in. deep, compact, globular-shaped, 13 flowers per truss; corolla 2¾ in. diameter, 2 in. long, fully expanded funnel-shaped, margins slightly waved, Yellow Group 2D flushed Yellow Group 3D, speckling on lower segment of Red Group 46A. Flowering from June 1, 1974. (17)

'Wilgens Surprise' ('Wilgens Ruby' × *R. williamsianum*). (Raised, introduced and sent by van Wilgens Nurseries, Boskoop, Holland.) **H.C.** May 9, 1974. Plant 2¾ ft. high, 4¾ ft. spread, vigorous, fairly compact, somewhat spreading habit; very free-flowering; leaves 2½ to 3 in. long, 1½ to 1¾ in. wide, light dull green. Flower truss 4½ in. diameter, 3½ in. deep, compact, globular-shaped, 7 to 8 flowers per truss; corolla 2 1/16 to 2¾ in. diameter, 1¾ in. long, wide-mouthed, funnel-shaped, margins plain, nearest a colour between Red-Purple Group 58C and 58D, slightly deepening in throat, slight dark red or chocolate brown spotting on upper middle segment. Flowering from May 3, 1974. (244)

EVERGREEN AZALEAS

'Florida' (*R.* unnamed seedling 37G1 × 'Vuyk's Scarlet'). (Raised and introduced by Vuyk van Nes.; sent by Vuyk van Nes and Knap Hill Nursery Ltd.) **F.C.C.** May 29, 1974. Described *R.H.S. Proceedings*, Vol. 97, p. 17 (A.M. 1973.) Flowering from May 10, 1974. (20 and 67)

'Hino-Crimson' (*R. amoenum* × 'Hinodegiri'). (Sent by L. R. Russell Ltd., Richmond Nurseries, Windlesham, Surrey.) **A.M.** April 26, 1974. Plant 1¾ ft. high, 3¾ ft. spread, vigorous, compact habit; very free-flowering; leaves ¾ to 1¼ in. long, ¼ to ½ in. wide, medium glossy green. Flower truss 3 in. diameter, 1½ in. deep, lax, globular-shaped, 6 flowers per truss; corolla 1½ in. diameter, 1 in. long, fully expanded funnel-shaped, margins slightly waved, Red Group 53D flushed with Red Group 53B, particularly at throat. Flowering from April 8, 1974. (80)

'Hino-Scarlet' (parentage unknown). (Raised and introduced by Mr H. M. Peters, Boskoop, Holland; sent by Experimental Station f.t. Nurseries, Boskoop, Holland.) **A.M.** May 29, 1974. Described *R.H.S. Proceedings*, Vol. 94, p. 131. (H.C. 1969.) Flowering from May 10, 1974. (105)

'Louise Dowdle' ((*R. mucronatum* × *R. vittata fortunei*) × 'Shinnyo-no-tsuki'). (Raised by Mr B. Y. Morrison, and sent by James Trehane & Sons Ltd., Ham Lane, Longham, Wimborne, Dorset.) **A.M.** May 29, 1974. Described p. 90. (H.C. 1973.) Flowering from May 28, 1974. (71)

'Rosemary Hyde' (*R. maxwellii* × 'Sir William Lawrence'). (Raised, introduced and sent by Mr W. G. T. Hyde, Woodlands Nursery Gardens, Carroll Avenue, Ferndown, Dorset.) **A.M.** April 26, 1974. Plant 2¼ ft. high, 3½ ft. spread, vigorous, compact habit; very free-flowering; leaves 1 to 2 in. long, ½ to 1 in. wide, medium light, dull green. Flower truss compact, 2 flowers per truss; corolla 2 in. diameter, 1½ in. long, widely expanded funnel-shaped, Red-Purple Group 67D flushed with Red-Purple Group 67C, spotting of Red-Purple Group 60A. Flowering from April 19, 1974. (129)

'Silver Moon' (('Mrs Carmichael' × 'Willy') × (*R. mucronatum lilacinum* × 'Willy')). (Raised by Mr B. Y. Morrison and sent by James Trehane & Sons Ltd.) **A.M.** May 29, 1974. Plant 2¼ ft. high, 5½ ft. spread, vigorous, fairly compact habit; very free-flowering; leaves 1 in. long, ¾ in. wide, medium dull green. Flower truss 4 in. diameter, 3½ in. deep, globular-shaped, 6 flowers per truss; corolla 3 in. diameter, 2 in. long, very fully expanded funnel-shaped, margins waved, white, with a blotch of pale greenish yellow. Flowering from May 25, 1974. (H.C. 1968.) (96)

'Everest' (*R. mucronatum* × 'Shinnyo-no-tsuki'). (Raised and introduced by Mr B. Y. Morrison, sent by Mr P. A. Cox.) **H.C.** May 29, 1974. Plant 13 in. high, 2¾ ft. spread, vigorous, compact habit; very free-flowering; leaves 1½ in. long, 1¼ in. wide, medium dull green. Flower truss compact, 3 to 4 flowers per truss; corolla 3 in. diameter, 2 in. long, very fully expanded funnel-shaped, margins slightly waved, white with a blotch of pale greenish yellow. Flowering from May 27, 1974. (120)

'Snow Hill' (*R. wada* × *R. mucronatum*). (Raised, introduced and sent by The Crown Estate Commissioners.) **H.C.** May 29, 1974. Plant 2 ft. high, 4 ft. spread, vigorous spreading habit; very free-flowering; leaves 1¾ in. long, ¾ in. wide, medium dull green. Flower truss compact, 4 to 5 flowers per truss; corolla 2¾ in. diameter, 1¾ in. long, very fully expanded funnel-shaped, white, with a blotch of pale greenish yellow. Flowering from May 20, 1974. (117)

AWARD TO AN EVERGREEN AZALEA OTHER THAN THOSE GROWN IN THE TRIALS

'Kiritsubo' (parentage unknown). (Supplied by The Director, R.H.S. Garden, Wisley, Woking, Surrey GU23 6QB.) **A.M.** May 9, 1974. Plant 3 to 3½ ft. high, 6 ft. spread, vigorous, upright, spreading habit; very free-flowering; leaves 1 to 1¼ in. long, ½ in. wide, medium dark, glossy green. Flower truss 1 in. diameter, ½ in. deep, compact, 2 to 3, occasionally 4, flowers per truss; corolla ⅜ in. diameter, ½ in. long, funnel-shaped. Purple Group 78B with bright cerise midrib, more prominent on outer surface.

1975

HARDY HYBRID RHODODENDRONS

'C.I.S.' ('Loder's White' × 'Fabia'). (Raised by Mr Rudolph Henny; introduced by Glendoick Gardens Ltd., and sent by Mr E. H. M. Cox.) **A.M.** May 28, 1975. Described p. 89, Flowering from May 20, 1975. (H.C. 1973.) (242)

'Pink Bountiful' (*R. williamsianum* × *R.* × *linswegeanum*). (Raised by Herr D. G. Hobbie; introduced by Le Feber & Co. Ltd., Boskoop, Holland, and sent by Slocock Nurseries.) **A.M.** April 24, 1975. Described p. 91. Flowering from April 24, 1975. (H.C. 1974.) (231)

'April Glow' ('Wilgens Ruby' × *R. williamsianum*). (Raised, introduced and sent by van Wilgens Nurseries, Boskoop, Holland.) **H.C.** April 24, 1975. Plant 5¼ ft. high, 5¾ ft. spread, fairly vigorous, upright habit; free-flowering; leaves 4½ in. long, 2¼ in. wide, medium dark, fairly glossy green. Flower truss 7½ in. diameter, 8 in. deep, globular-shaped, fairly compact, 10 flowers per truss; corolla 3½ in. diameter, 2½ in. long, campanulate-shaped, very pale pink heavily overlaid with Red Group 54B tinged with Red Group 53D particularly on outside of floret, light crimson speckling in throat. Flowering from April 16, 1975. (1)

'Honey' ('Hawk' × 'China'). (Raised and introduced by Walter C. Slocock; sent by Slocock Nurseries.) **H.C.** May 28, 1975. Plant 5 ft. high, 6 ft. spread, vigorous, spreading habit; free-flowering; leaves between 3½ and 5 in. long, between

1¼ and 2½ in. wide, dark dull green. Flower truss 4½ in. diameter, 7 in. deep, globular-shaped, compact, 13 flowers per truss; corolla 3 in. diameter, 2 in. long, funnel-shaped, cream overlaid with Yellow Group 4C particularly at margins; colour deepening slightly in throat. Flowering from May 16, 1975. (92)

'Katharine Fortescue' ('Hawk' ('Exbury A' var.) × *R. griffithianum* (hardy white form)). (Raised, introduced and sent by Mr L. S. Fortescue, The Garden House, Buckland Monachorum, Yelverton, Devon, PL20 7LQ.) **H.C.** April 24, 1975. Plant 5½ ft. high, 5¾ ft. spread, fairly vigorous, fairly compact habit; free-flowering; leaves between 2½ and 3½ in. long, between 1¼ and 1¾ in. wide, medium dull green. Flower truss 6 in. diameter, 5 in. deep, globular-shaped, compact, 9 to 11 flowers per truss; corolla 2¾ in. diameter, 2 in. long, campanulate-shaped, Green-Yellow Group 1D, deepening in throat to Yellow-Green Group 154C. Flowering from April 8, 1975. (4)

'Kings Ride' (*R. insigne* × *R. yakushimanum*). (Raised, introduced and sent by The Crown Estate Commissioners.) **H.C.** May 28, 1975. Plant 4 ft. high, 6½ ft. spread, vigorous, compact habit; free-flowering; leaves between 4 and 4½ in. long, 1½ in. wide, dark dull green. Flower truss 7 in. diameter, 6 in. deep, dome-shaped, compact, 17 flowers per truss; corolla 1½ in. diameter, 1¾ in. long, campanulate-shaped, margins slightly waved, white with brown speckling, flushed with Red-Purple Group 62B in the young stage. Flowering from May 22, 1975. (207)

EVERGREEN AZALEAS

'Blue Danube' (*R. malvatica* × *R. kaempferi*). (Raised by Mr van Hecke, sent by Slocock Nurseries.) **F.C.C.** May 28, 1975. Described *R.H.S. Proceedings*, Vol. 95, p. 115. (A.M. 1970.) Flowering from May 16, 1975. (38)

'Rosebud' ('Louise Gable' × 'Caroline Gable'). (Raised by Mr Joseph B. Gable, Stewartstown, Pa., U.S.A., sent by Knap Hill Nursery Ltd.) **F.C.C.** May 28, 1975. Described *R.H.S. Proceedings*, Vol. 97, p. 124. (A.M. 1972.) Flowering from May 16, 1975. (73)

'Ferndown Beauty' (parentage not supplied). (Raised by Mr C. E. Brown, introduced and sent by D. Stewart & Son Ltd., Ferndown Nurseries, Broomhill, Wimborne, Dorset.) **A.M.** May 28, 1975. Plant 1 ft. 7 in. high, 5½ ft. spread, vigorous, compact habit; very free-flowering; leaves between 1 and 1½ in. long, between ¼ and ½ in. wide, medium dull green. Flower truss 4 in. diameter, 3½ in. deep, 4 flowers per truss; corolla 2½ in. diameter, 1½ in. long, widely expanded funnel-shaped, margins waved, Red-Purple Group 68B overlaid with Red-Purple Group 68A, with speckling of Red-Purple Group 60B. (H.C. 1962.) Flowering from May 20, 1975. (63)

'Mimi' (parentage not supplied). **A.M.** May 28, 1975. Plant 2 ft. high, 4½ ft. spread, vigorous, compact habit; very free-flowering; leaves between 1¼ and 2 in. long, between ½ and 1 in. wide, medium dull green. Flowers borne in pairs; corolla 3 in. diameter, 1¾ in. long, widely expanded funnel-shaped, Red-Purple Group 62A flushed with Red-Purple Group 63B, speckling of Red-Purple Group 60C. Flowering from May 1, 1975. (74)

'Stewartsoniana' (parentage not supplied). (Raised and introduced by Mr Joseph B. Gable, sent by Slocock Nurseries and Mr James S. Wells, 474 Nutswamp Road, Red Bank, New Jersey 07701, U.S.A.) **A.M.** May 6, 1975. Described *R.H.S. Proceedings*, Vol. 97, p. 18. (H.C. 1971.) Flowering from May 4, 1975. (75 and 98)

'Coral Beauty' ('Daimio' × *R. simsii* F.C.C. form). (Raised, introduced and sent by Mr M. Haworth-Booth, Farall Nurseries.) **H.C.** June 11, 1975. Plant 2 ft. high, 5 ft. spread, fairly vigorous, spreading habit; free-flowering; leaves between 1 and 2 in. long, ¼ to ¾ in. wide, medium dull green. Flowers borne in pairs; corolla 2½ in. diameter, 1½ in. long, funnel-shaped, margins slightly waved; Red Group 43C with darker speckling. Flowering from June 9, 1975. (59)

'Elizabeth' (*R. indicum* × 'Hazel Dawson'). (Raised by Mr B. Y. Morrison, U.S.A., sent by James Trehane & Sons Ltd.) **H.C.** June 12, 1975. Plant 2½ ft. high, 5½ ft. spread, vigorous, spreading habit; free flowering; leaves 1¼ in. long, ½ in. wide, medium glossy green. Flowers borne singly; corolla 2¼ in. diameter, 1½ in. long, widely expanded funnel-shaped, margins slightly waved, Red Group 52B overlaid with Red Group 52A, with crimson speckling. Flowering from May 27, 1975. (72)

'James Gable' ('Caroline Gable' × 'Purple Splendour'). (Raised by Mr Joseph B. Gable, sent by Knap Hill Nursery Ltd.) **H.C.** May 28, 1975. Plant 1⅓ ft. high, 5 ft. spread, vigorous, spreading habit; very free-flowering; leaves between ½ and 1 in. long, between ¼ and ½ in. wide, light, dull green. Flowers borne in pairs, corolla 1¼ in. diameter, ¾ in. long, funnel-shaped, margins notched at tips, Red Group 53B. Flowering from May 1, 1975. (69)

'Niagara' (('Mrs Carmichael' × 'Willy') × *R. mucronatum liliacinum* × 'Willy')). (Raised by the United States Division of Plant Exploration and Introduction, sent by The Crown Estate Commissioners.) **H.C.** May 28, 1975. Plant 1 ft. high, 2¼ ft. spread, fairly vigorous, compact habit; very free-flowering; leaves between 1¼ and 2 in. long, between ¾ and 1 in. wide, light dull green. Flower truss 3½ in. diameter, 3 in. deep, 3 flowers per truss; corolla 2¾ in. diameter, 2 in. long, widely expanded funnel-shaped, white. Flowering from May 16, 1975. (118)

AWARD MADE TO AN EVERGREEN AZALEA
OTHER THAN THOSE GROWN IN THE TRIALS

Rhododendron macranthum (Supplied by the Director, R.H.S. Garden, Wisley, Woking, Surrey, GU23 6QB.) **A.M.** June 12, 1975. Plant 4 ft. high, 5 ft. spread, vigorous, spreading habit; very free-flowering; leaves 1 in. long, ½ in. wide, medium dark, dull green. Flowers borne singly and in pairs; corolla 2 in. diameter, 1⅜ in. long, widely expanded funnel-shaped, margins slightly waved, Red Group 54B with crimson speckling. Flowering from about June 6, 1975.

CAMELLIA × WILLIAMSII TRIALS AT WISLEY 1974

Sixty-six entries were grown in the trial of cultivars of *Camellia* × *williamsii* at Wisley in 1974. One plant of each entry was grown. The trial was planted originally in 1965, on a site on Battleston Hill, and was inspected for the first time in 1974. On the recommendation of the Rhododendron and Camellia Committee, Council has made the following awards to cultivars of *Camellia* × *williamsii*. The number given in brackets after the description of the plant is that under which it was grown in the trial.

AS CULTIVARS FOR GARDEN DECORATION

'Donation' (Sent by Hillier & Sons, West Hill Nurseries, Winchester, Hants, and supplied also by R.H.S. Garden, Wisley, Woking, Surrey, GU23 6QB.) **F.C.C.** April 9, 1974. Plant 8 ft. high, 7 ft. spread, vigorous, erect habit; free-flowering. Leaves 2 to 3½ in. long, 1 to 1½ in. wide, glossy dark green. Flowers 4 in. diameter, semi-double, with 4 to 5 rows of petals, pale pink flushed and veined with Red-Purple Group 64D. Flowering from February 21, 1974. (46 and 47)

'St. Ewe' (Raised by the late Mr J. C. Williams, and sent by Hillier & Sons, and Treseders' Nurseries (Truro) Ltd., The Nurseries, Truro, Cornwall.) **F.C.C.** April 19, 1974. Plant 9¼ ft. high, 7½ ft. spread, vigorous, erect habit, free-flowering. Leaves 2 to 3 inches long, 1 to 1½ in. wide, medium light green. Flowers 2½ in. diameter, single, Red Group 55A paling at margins, veined with Red Group 53D. Flowering from February 15, 1974. (65 and 66)

'Anticipation' (Raised by Mr L. E. Jury, introduced and sent by James Trehane & Sons Ltd., Ham Lane, Longham, Wimborne, Dorset.) **A.M.** April 26, 1974. Plant 5 ft. 10 in. high, 3 ft. spread, vigorous, erect habit; free-flowering. Leaves 3½ in. long, 1½ in. wide, fairly dark green. Flowers 4 in. diameter, peony form, with 6 rows of petals and numerous petaloids, Red-Purple Group 63B overlaid with Red Group 53C. Flowering from March 6, 1974. (34)

'Brigadoon' (Sent by James Trehane & Sons Ltd.) **A.M.** April 9, 1974. Plant 9 ft. high, 6 ft. spread, vigorous, erect habit; free-flowering. Leaves 2½ to 3½ in. long, 1½ to 2 in. wide, medium dull green. Flowers 5 in. diameter, semi-double, with 5 rows of petals, very pale pink overlaid with Red-Purple Group 62A, veined with Red-Purple Group 61D. Flowering from March 29, 1974. (56)

'Exaltation' (Raised, introduced and sent by The Crown Estate Commissioners, Crown Estate Office, The Great Park, Windsor, Berks.) **A.M.** April 9, 1974. Plant 7½ ft. high, 6 ft. spread, fairly vigorous, erect habit; free-flowering. Leaves 3 to 4½ in. long, 1¾ to 2 in. wide, dark green. Flowers 4 in. diameter, semi-double, with 4 to 5 rows of petals, very pale pink overlaid with Red Group 55B. Flowering from March 19, 1974. (33)

'George Blandford' (Raised by the late Mr J. C. Williams, and sent by Treseders' Nurseries (Truro) Ltd.) **A.M.** March 20, 1974. Plant 5¾ ft. high, 6 ft. spread, fairly vigorous, erect habit; free-flowering. Leaves 3 to 4 in. long, 1½ to 2 in. wide, glossy dark green. Flowers 3½ in. diameter, semi-double, with 4 rows of petals and some petaloids, Red Group 55A veined with Red Group 53D, with some white flecking on petaloids. Flowering from April 1, 1974. (9)

'Mary Larcom' (Raised by the late Mr J. C. Williams, and sent by Treseders' Nurseries (Truro) Ltd.) **A.M.** April 9, 1974. Plant 8 ft. high, 4½ ft. spread, vigorous, erect habit; free-flowering. Leaves 2¾ to 3¼ in. long, 2 to 2¼ in. wide, dull medium green. Flowers 3½ in. diameter, single, Red-Purple Group 62A. Flowering from April 1, 1974. (22)

'Shocking Pink' (Raised by Professor E. G. Waterhouse, and sent by James Trehane & Sons Ltd.) **A.M.** March 20, 1974. Plant 5¼ ft. high, 4¼ ft. spread, vigorous, erect and compact habit; free-flowering. Leaves 3 to 4 in. long, 1¼ to 1¾ in. wide, glossy, medium dark green. Flowers 3 in. diameter, double, with 10 rows of petals, Red-Purple Group 62B overlaid with Red-Purple Group 63B. Flowering from February 28, 1974. (36)

'Beatrice Michael' (Raised by the late Mr J. C. Williams, and sent by Treseders' Nurseries (Truro) Ltd.) **H.C.** March 20, 1974. Plant 5 ft. 7 in. tall, 3½ ft. spread, fairly vigorous, erect habit; free-flowering. Leaves 3 to 4 in. long, 1¼ to 1¾ in. wide, glossy, medium dark green. Flowers 2¾ in. diameter, semi-double, with 2 rows of petals, very pale pink, almost white, flushed with Red Group 55D. Flowering from February 15, 1974. (23)

'Mildred Veitch' (Raised, introduced and sent by Robert Veitch & Son Ltd., The Nurseries, Alphington, nr Exeter, Devon.) **H.C.** April 26, 1974. Plant 4¼ ft. high, 6 ft. spread, vigorous, spreading habit; free-flowering. Leaves 3½ in. long, 1½ in. wide, dark green. Flowers 3¼ in. diameter, semi-double, with 5 rows of petals and 8 petaloids, Red-Purple Group 62A. Flowering from March 29, 1974. (32)

1975

Sixty-nine entries were grown in the trial of cultivars of *Camellia* × *williamsii* at Wisley in 1975. The Rhododendron and Camellia Committee Council has made the following awards to cultivars of *Camellia* × *williamsii*, after trial at Wisley. The number given in brackets after the description of the plant is that under which it was grown in the trial.

'Anticipation' (Raised by Mr L. E. Jury, introduced and sent by James Trehane & Sons Ltd., Ham Lane, Longham, Wimborne, Dorset.) **F.C.C.** April 24, 1975. Described p. 95. Flowering from January 16, 1975. (A.M. 1974.) (34)

'Brigadoon' (Sent by James Trehane & Sons Ltd.) **F.C.C.** April 24, 1975. Described p. 95. Flowering from March 3, 1975. (A.M. 1974.) (56)

'Elsie Jury' (Raised by Mr L. E. Jury, introduced and sent by James Trehane & Sons Ltd.) **F.C.C.** May 6, 1975. Plant 7 ft. high, 5½ ft. spread, vigorous, erect habit; free-flowering. Leaves 3¼ in. long, 2¼ in. wide, dark green. Flowers 4½ in. diameter, peony form, with 3 rows of petals and numerous petaloids, Red Group 55B fading to white at margins. Flowering from February 5, 1975. (30)

'Bowen Bryant' (Raised by Professor E. G. Waterhouse, of Australia, sent by James Trehane & Sons Ltd.) **H.C.** April 24, 1975. Plant 9 ft. high, 7 ft. spread, vigorous, erect habit; free-flowering. Leaves 3½ in. long, 1¾ in. wide, dark green. Flowers 3½ in. diameter, semi-double, with 4 rows of petals and numerous stamens, Red Group 55C overlying a paler ground, becoming white at margins; veins flushed with Red Group 55B. Flowering from March 12, 1975. (24)

'Elegant Beauty' (Raised by Mr L. E. Jury, introduced and sent by James Trehane & Sons Ltd.) **H.C.** April 24, 1975. Plant 8 ft. high, 6 ft. spread, vigorous, erect habit; free-flowering. Leaves 3¾ in. long, 2¼ in. wide, dark green. Flowers 4 in. diameter, peony form, with 4 rows of petals and many petaloids, Red Group 54B on a slightly paler ground; petaloids white streaked with Red Group 54B. Flowering from March 3, 1975. (31)

Awards at London Shows

CAMELLIAS 1974/75

Camellia japonica 'R. L. Wheeler', F.C.C. March 25, 1975, as a flowering plant for the cool greenhouse. Raised by Wheelers Central Nurseries (U.S.A.), exhibited by Sir Giles Loder, Leonardslee, Horsham, Sussex.

Camellia japonica 'R. L. Wheeler', F.C.C. April 29, 1975, as a hardy flowering plant. Exhibited by Mrs Bernardine Gallagher, Oldfield, Verwood, Dorset.

Camellia granthamiana, A.M. November 19, 1974, as a flowering plant for the cool greenhouse. Flowers single, 15 cm. across. Petals white, notched at the apex, oblanceolate, up to 7 cm. long and 4 cm. wide. Perules about 12, persistent, densely silky especially outside, up to 3 cm. in diameter, orbicular. Stamens forming a dense, yellow dome in the centre of the flower. Leaves dark green, bullate above, oblong-elliptic, about 12 cm. long and 4 to 6 cm. wide, with an acuminate apex. A native of Hong Kong New Territories, it was discovered in 1955 and introduced by cuttings in 1956. Only one tree is known in the wild, Specimen in Herb. Hort. Wisley. Exhibited by Geoffrey Gorer, Sunte House, Haywards Heath, Sussex.

Camellia japonica 'Drama Girl', A.M. April 29, 1975, as a hardy flowering plant. Raised by E. W. Miller, Escondido, U.S.A., exhibited by Mrs Bernardine Gallagher. ('Drama Girl' received an F.C.C. in 1969 as a cool greenhouse plant.)

Camellia japonica 'Grand Slam', A.M. March 25, 1975, as a flowering plant for the cool greenhouse. Flowers up to 14 cm. across, anemone form, comprising 3 rows of large outer petals with a central mass of closely packed petaloides and a few stamens. Colour Red Group 50B with, centrally, a few white-flecked petaloides. Raised by Nuccio Nurseries, Altadena, California, exhibited by Sir Giles Loder.

Camellia reticulata 'Lila Naff', A.M., April 15, 1975, as a flowering plant for the cool greenhouse. Flowers semi-double, up to 14 cm. across: Red-Purple Group 62C. Raised by Tammia Nursery (U.S.A.), exhibited by Sir Giles Loder.

Camellia reticulata 'Shitzetou' (syn. 'Lion Head'), **A.M.** March 11, 1975, as a flowering plant for the cool greenhouse. Exhibited by The Crown Estate Commissioners, The Great Park, Windsor, Berks.

Camellia 'Valentine Day' (*C. reticulata* 'Tataochung' × *C. japonica* 'Tiffany'), **A.M.** March 11, 1975, as a flowering plant for the cool greenhouse. Flowers formal double, up to 13 cm. across. Red Group 52C with darker veining and with some paler streaking of a few inner petaloides. Raised by Howard Asper (U.S.A.), exhibited by Sir Giles Loder, Leonardslee, Horsham, Sussex.

MAGNOLIAS 1974/75

Magnolia campbellii 'Betty Jessel' (formerly 'Darjeeling'), **F.C.C.** March 11, 1975, as a hardy flowering tree. The clone 'Betty Jessel' is distinct from the species not only in the deeper colour of the flowers, but also in the date of opening, in some years as late as May. The flowers of the plant exhibited when fully open were nearly 10 inches in diameter, and the sepals ranged from 3½ to 5 inches in length by 1¾ to 2¼ across. The three outer segments were closest to Red-Purple Group 57C on their inner surfaces, shading to white at the base, and nearer Red-Purple Group 57B on the reverse, while the inner segments were slightly paler in colour. The plant shown was raised from a seedling obtained from the Botanical Gardens, Darjeeling, India, by the exhibitor in 1937. Specimen in Herb. Hort. Wisley. Exhibited by Sir George Jessel, Ladham House, Goudhurst, Kent.

Magnolia dawsoniana 'Chyverton', A.M. April 2, 1974, as a hardy flowering tree. The clone 'Chyverton' is distinct from the type in its darker-coloured flowers, red in bud, fading to pink. The plant exhibited had 9 to 12 oblanceolate to obovate tepals, 7 to 9 cm. long and 3 to 4 cm. wide. It was sent to Chyverton as a seedling from Caerhays in 1944 and flowered for the first time in 1968. Specimen in Herb. Hort. Wisley. Exhibited by N. T. Holman, Chyverton, Zelah, Truro, Cornwall.

Magnolia rostrata, A.M. September 3, 1974, as a half-hardy tree for foliage effect. This deciduous tree reaching over 50 feet in height in favourable situations needs to be grown in mild areas, sheltered from the wind. It is native to south-east China and Tibet and was discovered by George Forrest in Yunnan in 1917. The creamy white terminal solitary flowers are produced with the foliage in June. The award was given for the magnificent leaves, obovate in shape, tapering towards the petiole and rounded at the apex reaching 18 inches long by 10 inches wide. When young the foliage is somewhat reddish in colour and covered with reddish hairs, but when exhibited was glabrous and a dull green above, but very glaucous below, nearest Greyed Green Group 188B. Specimen in Herb. Hort. Wisley. Exhibited by Hillier and Sons, Winchester, Hampshire.

RHODODENDRONS 1974/75

Rhododendron campylogynum 'Beryl Taylor', (L.S. & T. 4738), **A.M.** May 19, 1975, as a hardy flowering plant. Collected by Ludlow, Sherriff and Taylor, raised and exhibited by Lord Aberconway and The National Trust, Bodnant, Tal-y-Cafn, Colwyn Bay, Denbighshire, North Wales.

Rhododendron ciliicalyx 'Walter Maynard', A.M. March 15, 1975, as a flowering plant for the cool greenhouse. Trusses 3 or 4 flowered; corolla openly funnel-campanulate, 5-lobed, up to 7.5 cm long and 8.5 cm across, white Group 155D, outer corolla yellowish green towards base, with bar of soft red-purple extending from the base of each segment, fading towards the rim of the corolla; upper throat strongly flushed shades of Yellow-Green Group 151. Stamens 10, held within corolla, filaments white, anthers cream-brown. Style greenish, of equal length. Calyx rudimentary, scaly, hair-fringed. Pedicels up to 12 mm long. Leaves narrowly elliptic 9 cm. long and 3 cm broad; dark, glossy green and slightly scaly below; petioles hairy, to 12 mm. Exhibited by Geoffrey Gorer, Sunte House, Haywards Heath, Sussex.

Rhododendron 'Greenway' (azalea, parentage unknown), **A.M.** May 19, 1975, as a hardy flowering plant. Origin uncertain. Exhibited by F. Julian Williams, Caerhays Castle, Gorran, Cornwall.

Rhododendron johnstoneanum 'Demi-john', A.M. April 15, 1975, as a flowering plant for the cool greenhouse. Flowers semi-double, in trusses of 3-4, open funnel-campanulate, up to 5 cm long and 7 cm across, fragrant, White Group 155c, throat strongly flushed Yellow-Green Group 153d. Style 4.5 cm long, greenish, held free of corolla; stamens absent. Leaves elliptic, up to 6 cm long and 3 cm across, dark green above; glaucous, scaly below. Exhibited by Sir Giles Loder, Leonardslee, Horsham, Sussex.

Rhododendron 'Lympne' (unnamed hybrid × *R. elliottii*), **A.M.** June 10, 1975, as a hardy flowering plant. Crossed, raised and introduced by Major A. E. Hardy, Sandling Park, Hythe, Kent.

Rhododendron 'Maestro' (*R. williamsianum* × *R.* 'Barclayi Robert Fox'), **A.M.** March 11, 1975, as a hardy flowering plant. Crossed, raised and exhibited by Major General E. G. W. W. Harrison, Tremeer, St. Tudy, Bodmin, Cornwall.

Rhododendron 'Mi Amor' (*R. lindleyi* × *R. nuttallii*), **A.M.** April 29, 1975, as a flowering plant for the cool greenhouse. A single six-flowered truss: flowers tubular-funnel-shaped, white, flushed yellow in throat, strongly fragrant. Corolla up to 8 cm long and 14 cm across, 5 joined lobes. Stamens 10, irregular in length. Calyx 5 regular lobes, up to 2.5 cm long, green. Leaves elliptic, up to 13 cm long and 7 cm across. Bright green above, glaucous and scaly below. Raised by Mr and Mrs Sumner, San Francisco, California, U.S.A., exhibited by The National Trust for Scotland, Brodick Castle Gardens, Isle of Arran, Scotland.

Rhododendron 'Oklahoma' ('Bellerophon' × 'Tallyho'), **A.M.** July 8, 1975, as a hardy flowering plant. Truss 20 to 22-flowered; corolla 5-petalled, openly funnel-shape 5 cm long and 8.5 cm across; Red Group 47b with slight darker spotting of upper lobe. Calyx 5 reflexed, irregular lobes to 3 cm in length; red. Stamens 10, irregular in length, held within; filaments red, anthers black. Style held free, red; stigma black. Petioles and outer surface of calyx hairy. Leaves narrowly elliptic, 17.5 cm long and 5.7 cm across, reverse sparsely covered with loose, light brown indumentum. Crossed by Lionel de Rothschild, raised and introduced by Major A. E. Hardy.

Rhododendron 'Pink Pebble' (*R. callimorphum* × *R. williamsianum*), **A.M.** May 19, 1975, as a hardy flowering plant. Crossed, raised and exhibited by Major General E. G. W. W. Harrison, Tremeer, St. Tudy, Bodmin, Cornwall.

Rhododendron 'Polar Cap' (*R.* 'Red Cap' × *R.* 'Polar Bear'), **A.M.** July 9, 1974, as a hardy flowering plant. Truss 7-flowered, loose, corolla 5-lobed, widely funnel-campanulate, up to 7 cm long and 7.5 cm across. Colour close to Red Group 54a with some faint darker markings in upper throat. Calyx 5 joined lobes, irregular, up to 2 mm long, greenish, glandular-hairy. Stamens 10, brown-anthered, irregular in length, held within corolla. Style of equal length; stigma reddish. Leaves narrowly elliptic, up to 13 cm long and 4.5 across, dark green above, undersurface sparsely covered with brown woolly indumentum. Crossed, raised and exhibited by P. J. Urlwin-Smith, Earley Cottage, Earleydene, Ascot, Berks.

Rhododendron 'Postling' (*R. cinnabarinum* var. *roylei* × *R. cinnabarinum* var. *blandfordiaeflorum*), **A.M.** May 19, 1975, as a hardy flowering plant. Crossed, raised and exhibited by Major A. E. Hardy.

Rhododendron 'Professor Hugo de Vries' ('Doncaster' × 'Pink Pearl'), **A.M.** June 10, 1975, as a hardy flowering plant. Truss loosely held, 16-flowered. Corolla 5-lobed, up to 5 cm long and 6 cm across; Red-Purple Group 65d, flushed Red-Purple Group 70c and 70d; upper throat white, spotted with Greyed-Purple Group 138a. Calyx green, 5 irregular lobes, fringed glandular hairs. Stamens 10, irregular, held within; filaments and anthers mauve. Style reddish, held free. Leaves elliptic, up to 17 cm long and 7.5 cm across, free from indumentum. Crossed by L. J. Endtz and Co., Boskoop, Netherlands, raised and exhibited by Major A. E. Hardy.

Rhododendron 'Rosevallon', A.M. March 11, 1975, as a hardy flowering plant. Flowers up to 5 in each truss. Corolla 5-lobed, tubular-campanulate, up to 4 cm long and 4 cm across, Red Group 53b. Calyx 5 joined deeply divided reflexed lobes, colour as corolla. Stamens 10, irregular, held within corolla. Filaments white, anthers black. Style of equal length, flushed red. Pedicel up to 2 cm long, lightly scaly. Leaves up to 4.8 cm long and 2.2 cm across, broadly elliptic, dark green above, a deep chocolate-purple below (near to Purple Group 79a). Obtained as a layer from a plant growing at Caerhays, exhibited by Crown Estate Commissioners, The Great Park, Windsor, Berks.

Rhododendron 'Royal Windsor' ('Jutland' × 'Royal Blood'), **A.M.** June 10, 1975, as a hardy flowering plant. Truss firm, rounded, 22-24 flowered. Corolla 5-lobed up to 5 cm long and 4 cm across. Red-Purple Group 60A with considerable darker spotting in upper throat. Calyx 5 irregular lobes, glandular-hairy, up to 4 mm long. Stamens 10, irregular in length, held within; anthers brown, filaments flushed red. Style held within, reddish, glandular-hairy. Leaves narrowly elliptic, up to 13 cm long and 4.5 cm across, dark green above, reverse with sparse indumentum along mid-rib. Crossed, raised and exhibited by Crown Estate Commissioners.

Rhododendron 'Snipe' (*R. pemakoense* × *R. davidsonianum*), **A.M.** April 29, 1975, as a hardy flowering plant. Raised by P. A. Cox, Glendoick Gardens Ltd., Perth, exhibited by Capt. Collingwood Ingram, The Grange, Benenden, Cranbrook, Kent.

Rhododendron 'Stanford' ('Fusilier' × 'Jalisco Goshawk'), **A.M.** May 19, 1975, as a hardy flowering plant. Crossed, raised and introduced by Major A. E. Hardy.

Rhododendron tephropeplum 'Butcher Wood' (KW 20844), **A.M.** May 19, 1975, as a hardy flowering plant. Collected by F. Kingdon-Ward, raised and exhibited by Major A. E. Hardy.

Rhododendron cinnabarinum var. **roylei 'Crarae Crimson'**, **P.C.** May 19, 1975, as a hardy flowering plant. Raised by Sir Ilay Campbell, exhibited by Capt. Collingwood Ingram.

Rhododendron 'Polar Glow' ('Red Cap' × 'Polar Bear'), **P.C.** July 9, 1974, shown as Seedling No. URL 1 as a hardy, flowering plant; crossed, raised and exhibited by P. J. Urlwin-Smith, Earley Cottage, Earleydene, Ascot, Berkshire.

ADDITIONS TO THE INTERNATIONAL RHODODENDRON REGISTER 1975

The following list contains names registered up to June 30 1975

Agate Pass Jewel	(*R. dichroanthum* × unknown). Corolla Greyed Orange group 164A (R.H.S.) with faint green stripes down inside and outside of lobes and extending down into throat. Int. 1974. Crossed 1965 by Ben Nelson, raised and introduced by Florence Putney, Box 288, Suquamish, Washington 98392, U.S.A.
Alexander	Name illegitimate as previously used, and registered within the genus. (*R. nakaharai* × 'Kin-no-sai' – evergreen azalea). Nickerson 5R 6/11 – 5/13 with light spotting on three lobes of 5R 4/12. Introduced 1970. Dr Tsuneshige Rokujo.
Apricot Spinner	(('Diane' × 'Citronella') × ('Wardii' × 'Dido')). Yellow Group 12 (R.H.S.) slight flushed Orange Group 29D. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp Ltd., Bagshot, Surrey, U.K.
Beautiful Day	('Hotei' × 'Crest'). Corolla Yellow Group 11A (R.H.S.) with inner stripes Orange Group 24C from throat to outer edge between each corolla lobe. Crossed 1964 and raised by Wm. E. Whitney, introduced 1975 by G. & A. Sather, Whitney Gds., Brinnon, Washington, U.S.A.
Beryl Taylor	Form of *campylogynum* collected by Ludlow, Sherriff and Taylor (4738), introduced 1975 by Lord Aberconway and The National Trust, Bodnant, North Wales. A.M. 1975.
Bess	('Constant Nymph'? × 'Purple Splendour'?). Crossed 1947 by Donald Waterer, raised and introduced 1975 by Knap Hill Nursery, Woking, Surrey, U.K.
Bitter Lemon	('Diane' × 'Gladys Rose'). Pale primrose, red eye. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Blind Date — (parentage unknown). Corolla Red Purple Group 62C-D (R.H.S.). Crossed 1962, raised by Wm. E. Whitney and introduced 1975 by G. & A. Sather, Whitney Gardens, Washington.

Bodega Ruby Red — (('David' × *R. sanguineum* subsp. *haemaleum* × *R. thomsonii*)). Corolla Red Group 46A (R.H.S.). Crossed 1967 raised and introduced 1974, by Carl G. Heller, Bodega Rhodo Nursery, Rt. 2, Box 647, Poulsbo, Washington.

Bodega Toreador — ('Vanguard' × 'Matador'). Corolla Red Group 43A (R.H.S.). Crossed 1967, raised and introduced 1974 by Carl G. Heller.

Borderer — ((*eriogynum* hybrid × 'Fabia') × (*yakushimanum* × 'Britannia')). Red Purple Group 58D (R.H.S.) deepening at edge Red Purple 58C. Crossed 1958, raised and introduced 1975 by John Waterer Sons and Crisp.

Bright Future — (((*discolor* hybrid × *eriogynum*) × (*discolor* hybrid × *griersonianum*))) × (('Jalisco Eclipse' × 'Fusilier') × 'Fabia Waterer')). Red Group 36D (R.H.S.), upper petals heavily marked yellow green 151B. Crossed 1958, raised and introduced 1975 by John Waterer Sons and Crisp.

Butcher Wood — (form of *tephropeplum* KW 20844). Collected by F. Kingdon-Ward, introduced by Major Hardy, Sandling Park, Hythe, Kent, U.K.

Cable Car — ('Tally Ho' × *R. fortunei*). Flowers Neyron Rose 623 (H.C.C.). Crossed 1962, raised and introduced 1974 by Alber Golden, 117 Parker Avenue, San Francisco, California 94118.

Calico — (Azalea ?? × Azalea ??). Lemon yellow. Crossed by D. Waterer, raised and introduced 1975 by Knaphill Nursery.

Caroline Allbrook — (*yakushimanum* × 'Purple Splendour'). Flower lavender, Purple Group 75B-C (R.H.S.), pronounced red spotting in upper throat fading to olive. Crossed, raised and introduced 1974 by A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey.

Cecil S. Seabrook — ('Fusilier' × 'Jasper' (form from Exbury)). Corolla Buttercup yellow 5/3 (H.C.C.), becoming Orange Buff 507/1. Crossed 1955, raised and introduced 1967 by C. S. Seabrook, Tacoma, Washington (dec'd).

Charlotte Currie — ('Barclayi Robert Fox' × *williamsianum*). Flowers deep red. Crossed, raised and introduced by Major-General E. G. W. W. Harrison, Tremeer, St. Tudy, Bodmin, Cornwall, U.K.

Chenille — (Azalea ? × Azalea ?). Rich cherry pink. Crossed by D. Waterer, raised by Knaphill Nursery (introduced 1975).

Chocolate Ice — ('Donald Waterer' × 'Whitethroat'). White. Crossed 1947 by D. Waterer, raised and introduced by Knaphill Nursery (1975).

Claret Bumble — ((*yakushimanum* × 'Britannia') × 'Jalisco')). Plum colour edges with paler centre. John Waterer Sons and Crisp. Introduced 1975.

Coch-y-bondu — ((*yakushimanum* × 'Fabia Tangerine') × 'Tally Ho' (selfed)). Flower Yellow Green Group 150D (R.H.S.). Crossed 1960, raised and introduced 1975 by John Waterer Sons and Crisp.

Connie Hatton — (*R. kyawii* × *R. discolor*). Corolla Red Group 55A (R.H.S.). Crossed 1964, raised and introduced 1974 by Howard A. Short, Route 7, Box 7472, Bainbridge Island, Washington 98110.

Crarae Crimson — (form of *cinnabarinum* var. *roylei*). Raised by Sir Ilay Campbell. Introduced 1975 by Capt. Collingwood Ingram, The Grange, Benenden, Cranbrook, Kent U.K. P.C. 1975.

Crosspatch — (Unknown × unknown). Corolla Red Group 54B (R.H.S.) shading to 46A. Crossed about 1962 by Ben Nelson, raised and introduced 1974 by Ruth McLaren, Agate Pass Garden, Box 288, Suquamish, Washington 98392.

Doris Moss — ('Romany Chai' × 'Purple Splendour'). Flower Red Purple Group 64A (R.H.S.). Crossed, raised and introduced 1975 by William Moss, Bryn Derwen Caerwys, Mold, Clwyd.

Dusky Wood — (('Cavalcade' × 'Mary Swaythling') × 'Hawk Crest')). Flowers soft rose pink with red flush. Introduced 1975 by John Waterer Sons and Crisp.

Dusty Miller — (*yakushimanum* × unnamed hybrid). Flowers pale pink and cream. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Ereda Beekman — (species from Fortunei Series × unknown). Flowers Yellow-Green Group 150D (R.H.S.), darker at edges. Crossed, raised and introduced 1975 by J. Beekman, Sassafras, Victoria, Australia.

Forever Amber — (('Cavalcade' × 'Mary Swaythling') × 'Hawk Crest'). Flowers Greyed Orange Group 170C (R.H.S.), veined and edged Red 52C. Crossed 1959, raised and introduced 1975 by John Waterer Sons and Crisp.

Frank Ludlow — (form of *dalhousiae* (L.S.T. 6694)). Collected by Ludlow, Sherriff and Taylor, introduced 1974 by Major Hardy. A.M. 1974 (as cool greenhouse plant).

General Practitioner — (*yakushimanum* hybrid selfed). Flowers Yellow Green Group 150D (R.H.S.). Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Girard's Crimson (evergreen azalea) — (('Boudoir' × 'Aladdin') × ('Boudoir' × 'Corporal')). Corolla 7.5 RP 5/12 Strong purplish Red (Nickerson) with 5R 4/12 strong red blotch. Crossed 1962, raised and introduced 1972 by Girard Nurseries, P.O. Box 428 Geneva, Ohio, 44041, U.S.A.

Girard's Hot Shot (evergreen azalea) — ('El Capitan' × 'Aladdin'). Corolla 7.5 R 4/11 dark reddish orange (Nickerson) with dark red or maroon spotting. Crossed, raised and introduced 1971 by Peter E. Girard Sr., Girard's Nurseries.

Girard's Rose (evergreen azalea) — ((('Fedora' × 'El Capitan') × 'Boudoir')) × 'Boudoir'))). Flowers 10 RP 6/12, deep pink, (Nickerson). Crossed, raised and introduced 1971 by Girard Nurseries.

Girard's Scarlet (evergreen azalea) — ('Aladdin' × 'El Capitan'). Flower 5R 4/12 strong red (Nickerson) with deep maroon blotch. Crossed, raised and introduced 1970 by Girard's Nurseries.

Glockenspiel — (Azalea ? × Azalea ?). Salmon-pink. Crossed by D. Waterer, raised and introduced 1975 by Knaphill Nursery.

Golden Spur — ('May Day' × 'Lascaux'). Flowers red, shading to golden apricot. Crossed, raised and introduced 1975 by A. F. George, Hydon Nurseries Ltd.

Green Highlander — (('Idealist' × 'Hawk') × 'Jalisco')). Flowers Yellow Group 8D (R.H.S.) deepening at centre to 8C. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Greenway — (Azalea, parentage unknown). Origin uncertain, introduced 1975 by F. Julian Williams (U.K.). A.M. 1975.

Greenwell Glory — (('Diane' × 'Gladys Rose') × *campylocarpum* × *kewensis*)). Flowers Red Group 49D (R.H.S.), marked 49B, upper petals marked Yellow Green Group 151B. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Heather Moth — (('Britannia' × (*yakushimanum* × unnamed hybrid)). Flowers Red-Purple Group 65D (R.H.S.) flushed with 68B. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Helen Everitt — (unknown Dexter hybrid × unknown Dexter hybrid). Corolla white. Crossed 1950 by Sam Everitt, raised and introduced 1958 by Henry and Selma Fuller, 41 Sherwood Road, Easton, Connecticut 06612.

High Curley — (('Fabia' × (*griersonianum* × *discolor* hybrid)). Flowers Yellow Group 4C (R.H.S.). John Waterer Sons and Crisp. Introduced 1975.

Hydon Harrier — ('May Day' × 'Jervis Bay'). Flowers orange-scarlet. Crossed, raised and introduced 1975 by A. F. George, Hydon Nurseries, Ltd.

Impala — ('Knaphill Red' (Azalea) × 'Satan' (Azalea)). Deep red. Crossed 1962 by D. Waterer, raised and introduced 1975 by Knaphill Nursery.

Invicta — ((*yakushimanum* × 'Britannia') × ('Loderi' × 'Britannia')). Flowers Red-Purple Group 73D (R.H.S.). Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Janet Warrilow — (? × *campanulatum* ??). Flowers lavender-blue, pale centre. Crossed by D. Waterer, raised and introduced 1975 by Knaphill Nursery.

Jock Scott — (('Hawk' × (*discolor* × hardy hybrid) × ('Jalisco Lindberg')). Apricot in bud, opening salmon-pink with slight yellow flush. Crossed 1964, raised and introduced 1974 by John Waterer Sons and Crisp.

John Caller — ('Idealist' (selfed) × 'Jalisco Orange'). Green Yellow Group 1C (R.H.S.). Crossed 1964, raised and introduced 1975 by John Waterer Sons and Crisp.

John Chappell (Knaphill azalea) — (Unknown × unknown). Seedling from The Bovers, Portland, Oregon. Flowers Yellow Orange Group 14A (R.H.S.) with orange 24A blotch on upper lobe. Raised and introduced by J. L. Chappell, 604 E. Hammond Street, Durham, N.C. 27704, U.S.A. Introduced 1975.

Johnny Rose — (*yakushimanum* × unnamed hybrid). Red-Purple Group 62D (R.H.S.) flushed Red Purple 62B. Crossed 1951, raised and introduced 1975 by John Waterer Sons and Crisp.

Julia Grothaus — ('Albatross' × 'Golden Belle'). Corolla Red Group 38A (R.H.S.) aging to 38C, with almost white edging, most prominent in bud, widening as flower ages. Crossed, raised and introduced 1974 by Molly Grothaus, 12373 S. W. Boones Ferry Road, Lake Oswego, Oregon 97034.

Kathleen Jane — (Unknown × unknown). Flower chrysanthemum crimson 824/1 (H.C.C.) with black spotting. Seed 1950 from unrecorded E. Coast U.S.A. firm. Raised and introduced 1958 by Mr and Mrs Freeman Stephens, Freeman Stephens Nursery, 896 Marine Dr., Bellingham, Washington 98225.

Kathryn Reboul — (*R. spinuliferum* × *R. racemosum*). Flowers Yellow Orange Group 19D (R.H.S.) flushed Red Group 50C reverse striped 50C. Crossed 1966 and raised by Donald Hardgrove. Introduced 1973 by Adele Reboul, Box 373, St. James, L.I., New York 11780.

La Verne	('Vulcan' × 'Mrs Furnival'). Corolla Rose Bengal 25/2 (H.C.C.) with deep red blotch and spots. Crossed, raised and introduced 1975 by Mr and Mrs Freeman Stephens, Bellingham.
Leslie's Purple (evergreen azalea)	('Elizabeth Gable' × 'Boudoir'). Corolla 7.5 RP 5/12 strong purplish red (Nickerson) with deep crimson spotting. Crossed 1965, raised and introduced 1975 by Girard Nurseries, Ohio.
Lily Maid	(*R. discolor* × unknown). Corolla Red Group 49D (R.H.S.) with a stripe-like blotch Greyed Orange Group 173B fading to 49D at expanded part of corolla. Crossed about 1964 by Ben Nelson, raised and introduced 1974 by Florence Putney, Suquamish.
Lympne	(Unnamed hybrid × *elliottii*). Red. Crossed, raised and introduced 1975 by Major Hardy. A.M. 1975.
Mary Lucille	('Mrs A. T. de la Mare' × 'Earl of Donoughmore'). Flower Rose Opal 022/3 (H.C.C.) with dark red throat and spots. Crossed 1960, raised and introduced 1975 by Mr and Mrs Freeman Stephens, Bellingham.
Mevrouw Jozef Heursel	('Violacea' × 'Hexe'). *R. simsii* type. Flowers Red-Purple Group 74B (R.H.S.) with blotches 59A. Crossed 1963 by M. Van Laucker, raised by J. Heursel and introduced by Institute of Ornamental Plant Growing, Caritasstraat B, 9230 Melle, Belgium.
Mevrouw Roger de Loose	(sport from 'De Waele's Favorite'). *R. simsii* type. Flowers Red Group 52C (R.H.S.) with white edge. Sport induced by gamma radiation, raised by R. de Loose, introduced by Laboratorium voor Bestralingen van het I.W.O.N.L. Institute of Ornamental Plant Growing, Belgium.
Millard Kepner	('Decatros' (*R. decorum* × *atrosanguineum*) × *R. yakushimanum*). Corolla Red Purple Group 58D (R.H.S.) outside reverse fading to white on inner surface. Crossed 1968 by F. W. Schumacher, raised and introduced 1974 by Max E. Byrkit, 28W Potomic Street, Williamsport, Maryland 21795, U.S.A.
Mount Hood	('Fawn' × 'Crest'). White with Chartreuse shading deep in throat. Crossed 1965, raised and introduced 1975 by Carl H. Phetteplace, Star Route, Leaburg, Oregon 97401, U.S.A.
Mrs Muriel Carfrae	(*R. yakushimanum* × unknown). Corolla Red-Purple Group 62C (R.H.S.) blending to Yellow-Orange 19D in throat. Crossed 1967 by Warren E. Berg, raised by James F. Caperci and introduced 1974 by Ken Trainor, 10502 – 32nd Ave., S.W. Seattle, Washington.
Nancy Sue	(Unknown × unknown). Magenta Rose 027/1 (H.C.C.) with dark gold spots. 1950 seed from unrecorded E. Coast nursery. Raised and introduced 1958 by Mr and Mrs Freeman Stephens, Bellingham.
Oryx	((*bakeri* × *occidentale*) × *kilauea*)). Cream opening white. Crossed 1959 by Donald Waterer, raised and introduced 1975 by Knaphill Nursery.
Pamela-Louise	(parentage unknown). Light pink (Red Purple Group) 65A (R.H.S.), reverse deeper 68B. Raiser unknown. Introduced 1974 by Hydon Nurseries Ltd.
Papoose	(Azalea ?? × Azalea ??). Pale pink. Crossed by D. Waterer, raised and introduced 1975 by Knaphill Nursery.
Patricia's Day	(*yakushimanum* × dwarf yellow (ex Windsor)). Flower Red Purple 65D (R.H.S.) veined Red Purple 65B. Crossed 1963, raised and introduced 1975 by John Waterer Sons and Crisp.

Penheale Blue	(*concinnum* var. *pseudoyanthinum* × *russatum*). Flower Violet Blue Group 92A (R.H.S.), very slightly flushed Violet Group 84A. Crossed, raised and introduced 1968 by Col. N. R. Colville, Penheale Manor, Launceston, Cornwall, U.K.
Pheasant Tail	((*eriogynum* hybrid × 'Fabia') × (*yakushimanum* × 'Britannia')). Rose pink, paler in centre. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.
Piccolo	(Azalea ? × Azalea ?). Cream tinged pink. Crossed by D. Waterer, raised and introduced 1975 by Knaphill Nursery.
Pinkerton	(*aberconwayi* × ?). Pink. Crossed, raised and introduced 1975 by Knaphill Nursery.
Pleasant Dream	(Unknown × unknown). Corolla Red Purple Group 68B (R.H.S.) with yellow shadings. Crossed and raised by Wm. E. Whitney, introduced 1975 by G. and A. Sather, Whitney Gardens.
Pleasant White (evergreen azalea)	('Cathay' × 'Clara Marie'). Corolla white. Crossed, raised and introduced by Girard Nurseries (1973).
Plectrum	(Azalea ? × Azalea ?). Apricot. Crossed by D. Waterer, raised and introduced 1975 by Knaphill Nursery.
Polar Cap	('Red Cap' × 'Polar Bear'). Crossed, raised and introduced 1974 by P. J. Urlwin-Smith, Earley Cottage, Earleydene, Ascot, Berks., U.K. A.M. 1974.
Polar Dawn	('Red Cap' × 'Polar Bear'). Flowers Red Group 52B (R.H.S.). Crossed, raised and introduced 1974 by P. J. Urlwin-Smith.
Polar Glow	('Red Cap' × 'Polar Bear'). Crossed, raised and introduced 1974 by P. J. Urlwin-Smith. P.C. 1974.
Postling	(*cinnabarinum* var. *roylei* × *cinnabarinum* var. *blandfordiaeflorum*). Crossed, raised and introduced 1975 by Major Hardy. A.M. 1975.
Renee Michelle (evergreen azalea)	(Seedling × 'Gumpo Pink'). Corolla 10 RP/12 deep pink (Nickerson) with light red spotting. Crossed, raised and introduced 1975 by Girard Nurseries.
Rosemary Hyde	(Maxwellii × 'Sir William Lawrence'). Crossed, raised and introduced 1972 by W. G. T. Hyde, Woodlands Nursery Gardens, Carroll Avenue, Ferndown, Dorset, U.K. A.M. 1974 (Trials).
Rosevallon	(*neriiflorum* hybrid as a layer from Caerhays Castle, Cornwall). Corolla Red Group 53B (R.H.S.). Introduced 1975 by Crown Estate Commissioners. A.M. 1975.
Ross Maud	('Fusilier' × 'Unique'). Red Group 55A (R.H.S.). Crossed and raised by A. Bramley, introduced 1975 by E. Bramley, Kallista, Victoria, Australia.
Royal Coachman	(('Essex Scarlet' × *eriogynum*) × ('Tally Ho' × 'Sunshine')). Flowers bright red with darker speckling on all petals. Crossed 1964, raised and introduced 1975 by John Waterer Sons and Crisp.
Royal Dragoon	((*eriogynum* × 'Fabia') × 'Mayday') × ('Fabia Tangerine' × 'Mars')). Red Group 45C (R.H.S.). Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.
Royal Windsor	('Jutland' × 'Royal Blood'). Red-Purple Group 60A (R.H.S.) with considerable darker spotting in upper throat. Crossed, raised and introduced by Crown Estate Commissioners. A.M. 1975.

Rushmoor
(('Fabia' × (*discolor* hybrid × *griersonianum*) × *discolor* hybrid × *eriogynum*)) × 'Mayday'). Red Purple Group 62D (R.H.S.) deepening to Red Purple Group 62B. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Sail Wing
(('Idealist' selfed) × ('Idealist' selfed) × 'Jalisco Orange')). White with blush tinge and yellow throat. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Sarah Jane
('Britannia' × (*yakushimanum* × unnamed hybrid)). Red-Purple Group 62D (R.H.S.) deepening at edge Red Purple 58C. Crossed 1964, raised and introduced 1975 by John Waterer Sons and Crisp.

Shanty
(Azalea ?? × Azalea ??). Pale cream-pink. Crossed, raised and introduced 1975 by Knaphill Nursery.

Show Boat
(*yakushimanum* (Exbury form) × 'Tumalo'). Corolla white with small yellowish green blotch in throat. Crossed 1962, raised and introduced 1975 by Carl H. Phetteplace, Oregon.

Sierra Sunrise
('Mrs Horace Fogg' × 'Point Defiance'). Red Group 56D (R.H.S.) to white, knife-edged in Neyron Rose 55B. Crossed, raised and introduced by J. G. Lofthouse, Vancouver (1975).

Silver Doctor
(*yakushimanum* hybrid 4343 × Yellow Hybrid (ex Windsor)). White Group 155A (R.H.S.) tinged Red 55D. Crossed 1963, raised and introduced 1975 by John Waterer Sons and Crisp.

Silver Sixpence
(('Fabia' × (*discolor* hybrid × *eriogynum*) × *discolor* hybrid × *griersonianum*) × (*wardii* × *yakushimanum*)). White Group 155C (R.H.S.), Red Group 50D, spotted Grey Yellow Group 162B. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Silver Twist
((*yakushimanum* × 'Britannia') × (Loderi × *yakushimanum*). Creamy white. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Soldier Palmer
((*eriogynum* hybrid × 'Fabia') × (*yakushimanum* × 'Britannia')). Red Group 47B (R.H.S.), spotted Red Group 53A. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.

Spellbinder
((*R. maximum* × *R. catawbiense* 'Russell Harmon') × (*R. calophytum* × *R. sutchuenense*)). Light purplish-pink 2.5 RP 8.5/5 (Nickerson). Crossed, raised and introduced 1974 by Dr David G. Leach, 1894 Hubbard Road, N. Madison, Ohio 44057, U.S.A.

Stanford
('Fusilier' × 'Jalisco Goshawk'). Crossed, raised and introduced 1975 by Major Hardy. A.M. 1975.

Sunburst (deciduous azalea)
('George Reynolds' × 'Klondyke'). Golden yellow. Crossed 1965, raised and introduced 1972-3 by Henny and Wennekamp Inc. 8529-67th Avenue N.E., Brookes, Oregon 97305, U.S.A.

Surrey Heath
((*eriogynum* × 'Fabia') × (*yakushimanum* × 'Britannia')). Rose pink H.C.C. 527/3 edged with spinel pink 527/3. Crossed 1958, raised and introduced 1975 by John Waterer Sons and Crisp.

Tokatee
('Mars' × *R. williamsianum*). Corolla Red Group 55A (R.H.S.) at outer edges of lobes to 55D in centre of lobes and throat. Crossed by Ben Lancaster, raised and introduced 1973 by Molly and Louis Grothaus, Oregon.

Tom Spring Smythe
(form of *dalhousiae* (T.S.S. 32)). Collected by T. Spring Smythe, introduced 1974 by Major Hardy. A.M. 1974 (as cool greenhouse plant).

Verna Phetteplace	('Lady Bessborough' × *R. yakushimanum* (Exbury clone)). Corolla ivory with pink shading, reverse moderate pink 2.5 R 8/5 (Nickerson). Crossed, raised and introduced 1975 by Carl M. Phetteplace, Oregon.
Vin Rose	(*yakushimanum* × ('Jalisco Eclipse' × 'Fusilier')). Red Purple Group 65D (R.H.S.) deepening at base to 65A. Crossed 1958, raised and introduced 1975 by John Waterer Sons and Crisp.
Virginia Stewart	('Countess of Haddington' × *R. nuttallii*). Corolla white between 157D and 155D (R.H.S.). Crossed, raised and introduced 1974 by Coulter Stewart, 155 Broadmoor Court, San Anselmo, CA 94960.
Vivienne Waterer	(Azalea ?? × Azalea ??). Apricot yellow. Crossed approximately 1938 by F. P. Knight, raised and introduced 1975 by Knaphill Nursery.
Water Cricket	((*griersonianum* × 'Siren') × 'Fabia') × 'Gros Claude'). White, flushed rose where petals meet. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.
Whakanui (deciduous azalea)	(parentage unknown). Seedling from New Zealand Rhododendron Association. Red Group 49D to 49B (R.H.S.), stripe in centre of corolla segments Red Group 50D. Introduced 1975 by Mrs Anne Pinney, South Canterbury, N.Z.
Wickhams Fancy	(*yakushimanum* × unnamed hybrid). White Group 155D (R.H.S.), slightly tinted Red Group 56D. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.
Yellow Sally	(('Idealist' × 'Hawk') × 'Phryne') × 'Jalisco Orange')). Yellow Group 2D (R.H.S.), slightly tinged Red Group 55D. Crossed, raised and introduced 1975 by John Waterer Sons and Crisp.
Yoga	(Azalea ?? × Azalea ??). Orange Flame. Crossed 1946 by D. Waterer, raised and introduced 1975 by Knaphill Nursery.

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