THE RHODODENDRON HANDBOOK

Part I: SPECIES IN GENERAL CULTIVATION

This invaluable handbook was revised again in 1967. It contains enlarged descriptions of rhododendron species known to be in cultivation with ratings for hardiness, size, and value for flower and foliage. It has been compiled by Dr. H. R. Fletcher, with assistance from Sir Eric Savill and other experts. In addition this new edition contains descriptions of many Malesian (New Guinea and Malayan) species now in cultivation. Lists of species in their series have again been included, with keys where available. The full lists of collectors' Numbers have been restored and brought up to date and those of Dr. E. H. Wilson have been added.

Lord Aberconway in his preface to this Handbook writes: "*I warmly commend this book to all growers or lovers of rhododendrons, as the most useful reference book on the species ever published.*"

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Part II: HYBRIDS

This part has been revised recently. It contains the Rhododendron Stud Book and includes hybrids which have received awards up to 1968 and other recent and interesting crosses as well as the lists of Hybrid Rhododendrons and Azaleas usually available in the Trade, with both the old and new ratings for hardiness and merit. These lists have again been brought up to date by experts and, together with the Stud Book, makes this Part of great use to breeders and growers of rhododendron hybrids. It is also of great use to the beginner, in helping him to select the best of the rhododendron hybrids available.

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R.H.S. RHODODENDRON AND CAMELLIA YEAR BOOK 1970

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THE RHODODENDRON AND CAMELLIA YEAR BOOK—1970

THE ROYAL HORTICULTURAL SOCIETY

Rhododendron articles in this issue cover a wide ground. Of great interest is a Symposium in which well-known contributors, headed by Lord Aberconway and Mr. E. de Rothschild, discuss six hybrid rhododendrons they would like to raise. Mr. Patrick Synge describes the garden at Tremeer in Cornwall; Mr. Michael Black gives an account of his expedition to Malesia in 1968; Mr. Walter Maynard discusses Rhododendrons on Eastern Long Island, U.S.A.; Mr. K. E. Flink gives much information on Rhododendrons in Scandinavia; Mr. Robert Hair reports on Pukeiti in New Zealand, and Mr. A. W. Headlam on the effect of drought on Rhododendrons in Melbourne. Mr. John Clarke's account of the adventures in identifying *Rhododendron* species collected by famous plant collectors and growing in the National Trust garden at Nymans, Sussex, is absorbing.

The Camellia Section of the Book is full of interest; Sir Giles Loder, gives the results of matching many of the Camellias he grows at Leonardslee with the R.H.S. Colour Chart and Dr. James Smart of Barnstaple gives his reasons for preferring a wide range of varieties seen in the U.S.A. or Portugal or at home. Col. T. Durrant of New Zealand continues with his Comments on *C. reticulata*. A new author to the Book, Mrs. V. Lort Phillips, has contributed a charming article on Camellias seen on a tour of Guernsey, Jersey and Brittany in 1969.

The Book contains as usual, reports on Rhododendron or Camellia Shows and is fully illustrated in colour and black and white.

COVER ILLUSTRATION
Camellia japonica 'Drama Girl'
Photo: Ernest Crowson of J. E. Downward

30s. postage and packing **3s.**

Acknowledgements

TO THIS ONLINE EDITION

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Photos: Ernest Crowson of J. E. Downward

Camellia reticulata 'Shihtzutou' (syn. 'Lion Head') which received a Certificate of Preliminary Commendation on March 18, 1969, when exhibited by the Crown Estate Commissioners, The Great Park, Windsor (see p. 192)

Camellia japonica 'Drama Girl', F.C.C. March 18, 1969. Shown by Sir Giles Loder, Bt. who was awarded a Certificate of Cultural Commendation for this exhibit (see p. 192)

THE RHODODENDRON AND CAMELLIA YEAR BOOK 1970

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FOREWORD

THE 1970 Rhododendron and Camellia Year Book can be said to have a world-wide flavour—Africa being the only continent missing from amongst the articles on where and how these two genera grow, and how accommodating they are—from thriving under the 130 inches of annual rainfall at Pukeiti contrasting with the drought conditions at Melbourne.

The symposium on the Six Hybrid Rhododendrons by eminent raisers and growers produces an interesting—and wide—selection of ideas, though personally I had expected to see more prominence given to compact types suitable for modern small gardens. The contributors to the Rhododendron Notes cover a wide range of subjects, and provide food for thought, and I hope may provoke some "answers" from new contributors in years to come. The detailed approach in assessing plants for awards in the United States, where availability is one of the criterions for an award, forms interesting reading.

Camellias this year have their fair share of the book. Here again writers from far afield show the wide and increasing popularity of this genus. Descriptions of Shows include an enlightening account of one in Northern Spain. It is interesting to see in print how climatic conditions can cause considerable variations in type and form of well-known variations of *Camellia japonica.*

I have dealt briefly with only a few of the varied articles, and hope more contributors will come forward so these Year Books can continue as annual publications.

GILES LODER,
Chairman, Rhododendron and Camellia Committee.

SIX HYBRID RHODODENDRONS I WOULD LIKE TO RAISE OR SEE IN FLOWER:

A Symposium

With contributions from LORD ABERCONWAY, V.M.H., J. S. BASFORD, Sir ILAY CAMPBELL, BT., PETER CLOUGH, PETER A. COX, A. C. GIBSON, GEOFFREY GORER, MAJOR-GENERAL E. G. W. W. HARRISON, CAPT. COLLINGWOOD INGRAM, V.M.H., FRANK KNIGHT, V.M.H., RT. HON. MICHAEL NOBLE, M.P., E. DE ROTHSCHILD, O. C. A. SLOCOCK, V.M.H., AND P. WISEMAN

WHEN one surveys the whole field of possible rhododendron parents, species and hybrids—even hybrids of several generations of breeding—and imagines that by a wave of a magic wand one might next spring see six new hybrids come into flower, the prospect is indeed exciting. But would one choose well, with the six permitted flourishes of the magic wand? Would one judge rightly which characteristics in a parent (particularly in one of already mixed lineage) will be dominant, which recessive?

And where should one look? Surely no further among the large trussed blood-reds. Nor among the later-flowered rather florid pinks. Nor for yet another mate to *yakusimanum*, that proud splendid plant that produces always such disappointing offspring. Perhaps the emphasis should be among the lepidote rhododendrons, and, to suit modern needs, among the smaller of those.

Let us start with *baileyi*. I cannot recall having seen it crossed. It would surely go well with a bright unnamed wine-coloured hybrid that I know, *saluenense* × *prostratum*. The bright openness of *baileyi* might be preserved and extended, its habit retained: an adventurous cross perhaps, fit either for the bonfire or the committee table.

Pursuing the same colour thought, what about *saluenense* or *calostrotum* or *russatum* crossed with either *concinnum* or *pseudoyanthinum*? There are six combinations there, and one must not waste more than one choice. I plump for a deep-coloured large-flowered *russatum*, with the best wine-coloured large flowered *pseudoyanthinum*. On colour one can't go wrong. The result should be of the shape and character of a 'Bluebird' or 'Blue Tit' but deep deep burgundy.

Fig. 1—(*opposite*) *Rhododendron praestans* 'Sunte Rock', P. C. April 1, 1969, when shown by Geoffrey Gorer, Esq., Sunte House, Haywards Heath (see p. 191).

And there is no yellow version of 'Bluebird'. The best form of *lutescens* might hand on its long eyelashes and its copious flowering habit to its progeny if crossed with *chryseum* or *muliense*. And it would flower later than *lutescens*, would be compact and should be hardy.

Reverting to the very deep ruby-purples, it is odd that *cinnabarinum* var. *roylei* crossed with *concinnum* has not been seen, to my knowledge. The sheen and glow and substance of the bells of *roylei* and the deep open flower of *concinnum* could make a fine sight with the sun behind it.

So already I have chosen four, all lepidote. For my last two I must turn to the elepidotes.

But still on the deep colour, *didymum* (or *haemaleum*, whichever is the darker, probably the former) I would like to see mated with the deep plum-coloured form of *cerasinum*. The waxy substance of *cerasinum* might remain, and the size of bell, and *didymum* might make the resultant offspring darker and more floriferous, and above all make it hold its flowers on the outside of the bush. *Didymum* is a proven parent, *cerasinum* has a reputation of producing poor offspring. But has it really had a fair test? The breeding I have in mind might be the answer.

Aperantum is a charming rhododendron, very varied in colour. It has been crossed successfully with a number of sanguineums in particular: but I have never seen a deep crimson *aperantum* crossed with *haematodes*. The sturdy qualities and massive flowering of all *haematodes* offspring would no doubt be in this hybrid, with, one would hope, the brightness of the bells of *aperantum*.

And that seems to be six. Most of these crosses have in fact been made, but whether any will flower next year or whether, for all or some of them, one must wait for a more distant year, remains to be seen.

And if, without cheating, I could be allowed as it were a 'desert island bisque', and mention one more for luck, not so much in this case from logic as from sentiment, I long to see flowering a cross between 'Loderi' and 'Sarita Loder'. This cross was made a few years ago by the first junior member of the Society: he chose 'Loderi', took its stamens, and dusted the pollen onto the pistil of a bud of 'Sarita Loder', which again he chose, pulled off the petals, tied on some bast for identification, and picked the seed later in the year. Three parts 'Loderi', one part *griersonianum:* it should be good anyway. Who knows?

Bodnant, N. Wales ABERCONWAY

MY first reaction to the question what six crosses I would like to be made was that I would far rather list six hundred of the present hybrids that should be destroyed. Of course they could be joined by quite a few forms of certain species that should have been on the bonfire long ago.

1. A scented, small-growing rhododendron to be grown mainly as a pot plant. Beautiful as *R.* 'Fragrantissimum' is, it is a straggly grower and very soon gets too big for the average home. As a starting point I would suggest 'Harry Tagg' or *R. iteophyllum* crossed with the pink form of *R. edgeworthii.* Even if the scent is not passed on to the hybrid there should be some colour and dwarfness to try a second cross with.

2. I am well aware from my own efforts that scent is not easy to transmit when hybridising. I would like to see the whole question of getting scent where there is colour and colour where we have scent carefully gone into. Three plants that could help here are the pink *R. edgeworthii* mentioned above, Mr. Gibson's pink *R. lindleyi* and Sir James Horlick's yellow *R. polyandrum.*

3. Among the Grande Series there are two that should give a good yellow hybrid *R. macabeanum* and *R. sidereum.* I would suggest a marriage between the best yellow *R. macabeanum* from Cornwall and the A. M. *R. sidereum* from Brodick. Or you could use the *R. sidereum* from Logan which I hear is even better. I wonder if the resulting hybrid would inherit *R. sidereum's* habit of improving in colour as the bloom ages. It would be nice to have another rhododendron that didn't fade.

4. Many gardens like Brodick Castle are open to the public all summer and some more good late-flowered hybrids would help to interest the holidaymakers. 'Polar Bear' is still a favourite for this job, but what about some hybrids from *R. serotinum* to flower even later.

5. A good handy dwarf yellow. The parent that comes to my mind is *R. glaucophyllum* var. *luteiflorum* and although I grow quite a few plants of this species I must admit I have not tried any hybridising.

6. To remake some of the old first crosses between two species using the very best materials in cultivation. For example, most *R. arizelum* crosses are useless, but what result would *R. arizelum* var. *rubicosum* give? *R. decorum* crosses are many, but how often was the large flowered pink form used as a parent? *R. meddianum* var. *atrokermesinum* is a beautiful rhododendron, but the form collected by Kingdon Ward (K.W. 19431) is far bigger than any I have seen, both in flower and truss size.

Lastly, what sort of parents would Wing-Cdr. Ingall's and Mr. Christie's *R. lacteum* make?

Brodick Castle Gardens JOHN BASFORD

PERHAPS it is because we, at Crarae, have never been able to grow it successfully, that I have come to consider *Rhododendron lacteum* one of the most desirable of *Rhododendron* species. It seems to have everything; attractive foliage, good habit of growth and, above all, in its best forms, perfectly shaped trusses of rich yellow flowers.

Alas, like some other beauties, it is temperamental, demanding, unappreciative and exasperating. There are gardens—some, I'm glad to say, Scottish ones—in which it deigns to flourish, notably Lochinch in Wigtownshire, Dawyck in Peeblesshire, Corsock in Kirkcudbrightshire and, above all, Blackhills in Morayshire. But so diverse are these localities, that it is difficult to learn any climatic lessons from this distribution.

For this reason I have often hoped that someone would cross *R. lacteum* with some of the excellent yellow-flowered "patent safety" hybrids, whose robust genes might perhaps do something to counteract the constitutional weaknesses of the species, and allow the ordinary gardener the joy of growing something akin to this lovely shrub, without the usual frustration and disappointments. It was doubtless with this in view that, at Exbury, *R. lacteum* was crossed with R. 'Dr. Stocker' to make 'Mariloo'. Alack, this gorgeous hybrid has inherited *R. lacteum's* temperamental habits to the full. *The Rhododendron Handbook* (Part 2) informs me that *R. lacteum* has been crossed with *arboreum album*, 'Cunningham's Sulphur' (for some reason also difficult at Crarae) and 'Logan Damaris', among others. As I have never, to my knowledge, seen any of these, I can but assume that they, too, have, for some reason, been found wanting. These two Exbury products 'Jocelyne' and 'Lionel's Triumph' are magnificent, and I hope that soon they may become more easily available, but they have lost that neatness, even primness of truss, which is such a feature of *R. lacteum*.

I should like to see the species crossed with some of the old Slocock yellows, 'Dairymaid', 'Unique', 'Goldsworth Yellow' or Koster's 'Diane'. These are all floriferous, thrive happily almost anywhere, have well-shaped trusses and, in the case of the first two, possess good foliage as well.

The issue of some such union could possibly be found to satisfy what, to me at any rate, is a strongly felt want.

Crarae, Inveraray, Argyll ILAY CAMPBELL

WHAT has become of the F_2 generation?

Looking through the Rhododendron Stud-book, it is amazing to discover that no hybrid has been registered as a self-pollinated seedling of any basic cross between two species. Everything is $a \times b$, never $a \times a$. Is it possible that in the rush to incorporate the influence of newly discovered species we have omitted to exploit fully the work of the first hybridisers by assuming that the greatest potential of any cross is revealed in the first generation?

Looking at 'Loderi' and 'Shilsonii' perhaps we may be forgiven for assuming so, but many others seem to me to have latent possibilities not apparent in the F_1 generation.

I put the question not as a challenge, but as an innocent enquiry, based only on the knowledge that the only possible way to achieve full assortment of genetic material and influence is to raise a large second generation from self-pollinated seed of the first generation.

The hybrid vigour which is evident in all the basic F_1 hybrids is becoming less of an advantage in the age of smaller gardens, and perhaps it might be useful to resume the good work of the "Old Masters" and produce some F_2 generations. The drawback, I imagine, must be the large numbers of seedlings which require to be grown into flowering size to guarantee a reasonably full shuffling of the genes.

The advantage, I would think, would be a clearer understanding of gene inheritance in rhododendrons, with the chance of one or two seedlings exhibiting the glories of their parents in more amenable splendour than in the present hybrid.

Any serious breeder would surely be interested in the results of such work from a scientific point of view, but certain crosses seem more likely than others to produce the chance of enhanced beauty in the reshuffle. 'Nobleanum' seems to me to be a likely candidate—not quite as good as it could have been, but I would also like to see the results from such widely planted hybrids as 'Blue Tit', 'Carmen', 'Fabia', 'Yellow Hammer', and 'Elizabeth', all so far as I can see just as likely to produce gardenworthy hybrids amongst the F_2 assemblage, as by more cross pollination.

The dwarfs also fascinate me. What would crop up from 'Sarled' or 'Chikor' for example? The scope is obviously enormous; it might be possible to out-Praecox 'Praecox' and even give a touch of maturity to 'Youthful Sin'.

Perhaps the large numbers involved in the raising and the high proportion of unhappy combinations produced have put everyone off the idea long ago, but I do not see that the F_1 should be by unwritten law the finality of a cross. I often wonder how many A.Ms. have been lost in the falling seed pods at dead heading.

Gardener to Sir James Horlick, Bt. PETER CLOUGH, N.D.H.
Isle of Gigha, Argyll

I STARTED hybridising in a small way in 1954, largely amongst the dwarf lepidotes with the aim of producing good garden plants suitable for a small garden. While I have been lucky in making a few successful crosses, many have failed either to set seed at all or to give me good plants with healthy foliage.

In some cases an unknown incompatibility may be responsible for this, but in many the trouble has been the difficulty in bridging the gap between diploids, tetraploids and hexaploids. I have yet to try a cross between an elepidote and a lepidote, and an azalea with a rhododendron, and while these have on occasion met with success, I feel that there are still so many lines to be tried within the existing divisions of the genus.

I am not generally keen on pastel shades so I nearly always make my crosses within one colour range or bring in another colour purely because that belongs to a plant which may have characteristics not available in my original choice of colour. Therefore what I aim at are good clean colours and what I am after are compact, free flowering dwarfs or semi-dwarfs which are hardy enough for the average garden. All must be easy to propagate from cuttings, have good foliage, should be easily grown and flower at an early age. There are far too many hybrids such as 'Aries' F.C.C. (*thomsonii* × *neriiflorum*) which has good flowers but a terrible ungainly habit. Plants such as this should never have been selected and named, let alone received awards. It seems a pity that so many awards are given to cut branches when the habit cannot be judged.

My first choice is to make a dwarf reasonably compact *cinnabarinum* hybrid. As this is a hexaploid and most dwarfs are

diploids, I am at once in difficulty here. It might be possible either to double or treble the chromosomes in an existing diploid, or use one of the few tetraploid or hexaploid dwarfs. Masses of tubular pendent flowers, either in red, pink, orange or yellow, would be marvellous on a little bush of three feet or under.

Second, a scented hardy compact semi-dwarf with flowers of good substance and healthy looking foliage. Scent is unfortunately rather elusive in rhododendrons. Usually, if a scented species is crossed with a non-scented one, the scent is lost, and nearly all scented species are of moderate to tall stature. So it is a difficult problem. Two lines of crossing could be tackled; either with the scented elepidotes such as *fortunei* and *decorum*, or with the Maddenii and Edgeworthii Series of the lepidotes. The stronger perfumes are met with in the latter and so are lower growing plants, but the elepidotes are much easier to cross, so it is hard to know which to try. Presumably this hybrid would likely be either white or pink.

Thirdly, that goal of many hybridisers, a compact low growing, hardy true-yellow elepidote, with a fairly full but not overcrowded truss. I find that many of the existing yellows start into growth far too early so that they often get frosted. To avoid this, a large part of the blood in this hybrid must be from late growing varieties, and a late flowering plant does not necessarily mean late growth. *Chrysanthum* might be useful for its extreme dwarfness but it does grow early. Some sort of a combination of *caucasicum* and *yakusimanum* with *wardii* blood like 'Crest' possibly with the addition of *dichroanthum*, should after various generations of crossing, produce the desired result but it will take time. *Lacteum* and *macabeanum* could be used to a small extent but *lacteum* in particular, has too many faults, and these would be hard to eradicate.

Fourthly, a rather similar plant but pure white. There is great scope here with the use of species which have been little used in the past, such as *roxieanum*, *aberconwayi*, *puralbum*, *thayerianum*, *pseudochrysanthum*, and *hyperythrum*, together with the tough *yakusimanum* or *catawbiense* var. *album* 'Glass'. *Williamsianum* could be used but most of its progeny grow too early. Some of the bigger species such as *griffithianum*, *discolor*, and the new *hemsleyanum* could be incorporated. There is a great need for new hybrids of this type.

Fifthly, *nakahari* which is absolutely prostrate and flowers in July and even into August with rose-red to red flowers, should

surely be the parent of a completely new race of hardy late-flowering dwarf evergreen azaleas. If hardiness is used with *kaempferi* and *poukhanense*, these should be very suitable plants for northern gardens which cannot flower the Gumpo and Satsuki groups.

Lastly, yellows have long been my favourite from a hybridising angle. Having just started to develop a collection of Malesian rhododendrons, I feel that I might for once break my rule of not breeding outside definite groups, and try a cross between a dwarf lepidote like *ludlowii*, a favourite parent of mine, and one of the big yellow-flowered Malesians like *aurigeranum*. As a cross like this is unlikely ever to produce a hardy garden plant, at least not unless the result is fertile and one can make subsequent crosses with it, one might go a stage further, and cross it with *chrysodoron*, or even further with *dalhousiae*. The result might be too vulgar to behold.

Glendoick, Nr. Perth, Scotland PETER A. COX

I AM afraid that we have been scandalously neglectful of hybrids, perhaps this is because all of us have a deep seated, inner love for the species, tiresome and thwarting and stubborn though they may be. Not infrequently we find that we dislike some sp. No. collected by – – and in due course out it goes, or rather, they go, after a year or so of flowering which may well be thirty or more years after the original started from seed. Those we have in mind are of a spotty pinky type, with a dash of printers ink to make them what they are. The leaves may be arresting, but the flowers are not worth half a lifetime to behold. But that perhaps is just the point! We have a limited acreage and more and more plants in that 13 acres are being cut out every now and then to give elbow-room to better ones. Enough of that! It may readily be seen where our sympathies lie. Too much overcrowding can become a deadly sin. But when we come on to the rhododendron hybrids, and they are available by the thousands and most wonderful and most gorgeous things many of them are, we have quite a good number which I will not enumerate, mostly given to us by good friends as small layers, many years ago, and one stops beside each and doffs one's hat, and pays homage, and rightly. We have also been given a few shockers from time to time which after a few years found honourable peace in a bonfire. But, on our own, we have amused ourselves with our own hybridisations since about 1933. We are not scientific, and have not been guided by

Photos: Harry Smith

PLATE 1—Rhododendron 'Crest', one of the finest yellow hybrids raised by the late Lionel de Rothschild at Exbury, received the F.C.C. in 1953 (see p. 31). PLATE 2—Rhododendron 'Fortune', an unrivalled large-leaved hybrid with yellow flowers raised by the late Lionel de Rothschild was awarded the F.C.C. in 1938

Mendel's theories, and we don't keep pollen in test tubes. Rather the sudden inspiration—"so and so is out let's cross it with that and that." With one or two exceptions only, this amateurish work has been confined to crosses between species. We have never crossed any sort of an hybrid with another hybrid. As will be understood, we can only append a short note of a few of our own crosses which find approval with us and most of them have never been shown or registered. All have flowered, with the exception of No. 5. Many of these had been made by others, but we set about it in our own way before the advantages of the Hybrid stud book were appreciated by us.

1. 'Ronald' (*sinogrande* × *hodgsonii*) A. M. 1958. When *sinogrande* flowered for the first time in Scotland in 1933, we went up to Arisaig to the garden of the late John A. Holms and made this cross with him. From memory the result was nine small plants, of which we have four here and the others were given away.

1a. *Sinogrande* × *grande*. The same case history. The cross is perhaps less bud-tender than *grande*, and the foliage is intermediate between the two parents, but without the total size of the best *sinogrande*. The flowering point is hardier than *grande*, and slightly larger.

2. *Falconeri* × *sinogrande*. Made in 1936. We have a good many of these, and all are top score. Our plants have not got the yellow of 'Fortune' (which I have never been lucky enough to behold in flower), but they are tough; after last winter's three hard months they are very near perfect, and nearly the size of soccer balls. The foliage is half way between the length and breadth of the parents, and takes after *falconeri* in that it will stand buffeting by the wind, and not look over tattered, whereas *sinogrande* leaves can't stand being blown about too much.

3. 'Essa' (*eximeum* × ? *hodgsonii*). This is an oddity. We took one seed pod of *eximeum* in 1935 and sowed it in order to have more young *eximeums* coming along. Not many germinated, but one rascal caught the eye when we were pricking out, and was put into the corner of the box. It outstripped its legitimate *eximeum* brethren and was kept apart and soon showed that its mother was *eximeum*, because it started to wear indumentum both on the top and under the new leaf. Anyway the nearest father we could find was *hodgsonii*, and this affair looks very like a mixed marriage, within one seed pod, between those parents. All the others followed mother and were unerringly good little *eximeums* now some 12

feet high. But this adventurer is now all of 25 feet high and demands attention, getting the best of both worlds, I suppose, and really is rather an eye-catcher, opening a deep rose pink.

4. *Falconeri* × *macabeanum*. Seed 1951. The parents were the yellowest of our *falconeris*, and the best of the *macabeanums*. I'm afraid we gave away too many at the young puppy stage and are now left with eight but we rate this higher than anything else which has been attempted here. They are as yellow as the best *macabeanum*, and a quarter size larger in the truss. The flower bud is more frost resistant than is *macabeanum* and the foliage on most of the plants takes after *macabeanum* rather than *falconeri*. In this month (May) it surpasses *macabeanum* for winter bud hardiness. The flowers are full open, whereas *macabeanum* in various situations has gone partly hollow in the middle of most trusses. We take our hats off to this one.

5. *Sinogrande* × *macabeanum* and *macabeanum* × *sinogrande*. To conclude our big series crosses here. They have not yet flowered. We made the cross both ways in 1955 when both were in flower together, and we had an abundance of seedlings which we handed out to many good friends a number of years ago. The plants we kept here have not yet flowered but are up to about the 7 foot mark in height. They might start to flower within a few years (I am tempted to try the old trick of a string ligature on a branch facing north—it frequently makes that branch flower before its due time!). There is great variation of leaf in length and breadth in the crosses, both ways.

6. 'Tally Ho' × *dichroanthum*. Cross made 1946. Here, we tried a first-class hybrid with a species, and the results were surprising. A few conformed with 'Tally Ho' (indumentum under leaf, colour and so on) but one or two stuck to *dichroanthum*, leaf and all, but with almost double size pips of the most wonderful Dichro colour. Those that went Dichro way were far better than the best Dichro we have ever seen.

7. 'Pook' (*williamsianum* × ? *souliei*). Seed sown as *williamsianum*. Both the pink and white forms of this are plants up to 12 feet or more high, and are much admired. The bees are to blame.

8. *Didymum* × *chamae-thomsonii*. Cross made 1951. This was a deliberate cross. It takes after *didymum* more than *chamae-thomsonii* because it flowers later. It has the imprint of *chamae-thomsonii* in its habit of growth. All have the late flowering habit of *didymum* and the colour, but the foliage is more broad than

didymum. A good late-flowerer, but much earlier than *didymum*, it starts to flower in June.

9. *Chaetomallum* × *chamae-thomsonii*. Seed 1952. This one is a teaser! A deliberate cross, and we now have perhaps eight plants left. One is almost 1 yard across, and some of the others can be measured in $\frac{1}{2}$-feet at most. All are good, but they seem to be fickle. We gave it the unworthy name of 'Red Biddy' some years ago when it appeared at a show! Not one is bad in colour, they are all good as befits their parentage, but several are "wabbit", and disinclined to grow in a healthy way. Perhaps one parent has a different type of blood to the other, as we have in the human race sometimes.

10. *Strigillosum* × *chamae-thomsonii*. Seed 1955. Surely these two parents ought to combine to produce the very best of the best red offspring. But even they can have their lapses! We had quite a good seed pan of this hand-made cross, and it went through the usual stages, and in due course a good few went to friends at about the 4-inch stage. Among those we kept here, the majority have flowered for some years now, at a height of 18–24 inches. Before those crosses flowered we had noticed that two of them had greenish growth buds whereas the others had reddish growth buds. The seedlings with the greenish growth buds when they flowered, came out an attractive apricot-pink colour. All the others came out as one would suspect, the deep colour of their parents, *strigillosum* and *chamae-thomsonii*—but all have the dwarf habit of *chamae-thomsonii*.

Glenarn, Rhu, Dunbartonshire A. C. GIBSON

WHAT I should like to see hybridists do—what I should like to do myself if I had the space—is to concentrate on other aspects of the rhododendron besides the size and colour of the flower, in particular on foliage and scent. I feel that in judging rhododendrons, too little attention is paid to the fact that rhododendrons are in our gardens twelve months in the year; and their appearance for the eleven months that they are not in flower should be judged as well as their blooms.

Excluding the hybrids of the Falconeri and Grande Series, which need the same woodland conditions as their parents, it seems that most hybrids with good foliage have been arrived at by accident, chiefly because of the presence of *haematodes* or

williamsianum in their parentage. The young foliage of 'Bow Bells' ('Corona' × *williamsianum*) is at least as attractive as its flower, and the felting of the leaves of 'Grosclaude' (*eriogynum* × *haematodes*) makes it an ornamental plant all the year round. That very under-rated hybrid 'Winsome' (*griersonianum* × 'Humming Bird') has beautiful red young foliage; and 'Matador' (*griersonianum* × *strigillosum*) keeps much of the character of its *strigillosum* parent. Some of the other *williamsianum* hybrids also have good young foliage; but among the hybrids I grow these are practically the only plants which are as agreeable to look at in September as in their flowering season. I should like to see much more self-conscious seeking for ornamental foliage by the hybridists.

One of the most beautiful of the species for foliage is *bureavii*, with a lovely rusty-red indumentum. As far as the Handbook is any guide, the hybridists have never used this plant as a parent. My own plant, and those I have seen in other collections, are sparse flowerers, and the flowers are relatively uninteresting, a small truss of white or (according to the Handbook) rose flowers.

I should like to keep the beautiful foliage of *bureavii*, and to improve its flowers and floriferousness. I should choose a white-flowered form, and use a white-flowered parent. Among the species *decorum* would seem the most likely to succeed; but it might be preferable to use a white-flowered hybrid. I think I should try 'Leonardslee Giles' (*griffithianum* × 'Standishii') or 'Snow Queen' ('Halopeanum' × Loderi), two floriferous plants with most elegant flowers but quite uninteresting foliage.

If this first cross succeeded, it might be interesting to try for a second generation hybrid which would keep the foliage of *bureavii* and have apricot flowers to complement the colour of the foliage. The colour I should aim at would be that of 'Margaret Dunn' (*discolor* × 'Fabia'); that would be one possible parent, but one might do better with a good orange form of *dichroanthum*. Since this would be a second generation plant, I am not counting it among my six.

A second species with beautifully felted leaves which the hybridist has apparently also neglected is *mallotum*. This has good dark crimson flowers, but they are not very freely produced and are so early that they are frequently cut by frost. I should like to cross this with *elliottii*, or *eriogynum*, to see if one could not preserve the foliage and get a good crimson flower somewhat later in the season than *mallotum* itself.

A third species which does not appear in the Table II of the Handbook is *argyrophyllum*, which has most striking silvery-white indumentum under its leaves. This is a beautiful plant in itself, with fine pale-pink flowers in most forms, but it is rather large (according to the Handbook it grows up to 20 feet) and inclined to be straggly. It might be worth while seeing if one could keep the foliage and make it a plant of more general use by crossing it with a good form of *yakusimanum*, whose flowers are near to it in colour.

To try to get scent into hardy plants I think much more use could be made of *edgeworthii* (*bullatum*) which is hardy itself in the south and west in a sunny position, and which does transmit its scent to its progeny, as is shown by its relatively tender hybrids 'Princess Alice' (× *ciliatum*) 'Fragrantissimum' and 'Sesterianum' (both × *formosum*) as well as the cross with *leucaspis*, apparently made both by Mr. Adams-Acton ('Copelia') and Mr. J. C. Williams of Caerhays. This plant seems as hardy as *leucaspis* but, unfortunately, flowers just as early.

I should like to use strongly scented forms of *edgeworthii* (for individual plants vary a great deal in the strength of their scent) on a number of species in the Triflorum Series; since both series are lepidote, the crosses ought to be fertile. I would use a white form of *edgeworthii* as a parent on the white form of *rigidum* (formerly *caeruleum* var. *album*) or *yunnanense*; a pink form of *edgeworthii* on the pink form of *davidsonianum*; and both forms on *augustinii*. A hybrid which combined the colour and grace of *augustinii* with the scent of *edgeworthii* is a plant I should very much like to have.

Haywards Heath, Sussex GEOFFREY GORER

IN the breeding of rhododendrons so many considerations must be taken into account that the issue may become confused, and therefore I start this difficult article with a few thoughts which seem applicable to modern gardening.

(a) An increase in the length of the flowering period, particularly into the summer months when more time is spent in the garden than at other seasons.
(b) An emphasis on medium and smaller plants suitable for gardens under four acres.
(c) A greater consideration for foliage. It was pleasing to see that *lepidostylum* has recently been given an Award of Merit

as foliage plant. We live with the foliage for twelve months of the year and we see the flower for three weeks with luck. Those who decry rhododendrons have often judged the genus by the hardy hybrids, most of which have a great similarity of foliage rather inferior to the laurel, although there can be no genus showing wider variety in its foliage.

Gardeners naturally vary greatly in their choice of favourite parents. Most would agree that *griersonianum* and *griffithianum*, though themselves rather tender, have produced a wide range of beautiful hybrids hardier than themselves. Myself, I put *williamsianum*, Barclayi, *wardii*, *lacteum*, and *diaprepes* high in the batting order. I should call all these "strong" parents in that they mark their children indelibly with their own characteristics, whether it be flower, habit, or foliage.

Some people may not like the deep purple crimson of *saluenense*, but I like it and think that its open pansy face is most attractive, while the small deep green leaves set off the flowers to perfection. I should like to see *saluenense* crossed with *pseudoyanthinum* or with a free flowering deep blue, such as 'Saint Breward' or 'Blue Diamond'.

Perhaps my favourite colour in rhododendrons is yellow suffused pink, which I have tried to produce without success. As an example, *wardii* × Loderi, though very beautiful, shows no sign of a flush of pink in any of the clones that I have seen. I do not particularly like 'Norman Shaw' itself, but it might make a suitable parent with *wardii*, as it has a compact truss of many flowers, a frilled corolla, flowers late in the season, and is a strong pink which might induce suffused colouring with *wardii*.

There is a form of *diaprepes* whose young leaves are bronze, which if crossed with *williamsianum*, should produce a compact rounded bush with a heart-shaped leaf, bronze-coloured when young. The flowers should be attractive as seen in the garden, but their pedicels, like so many *williamsianum* hybrids, might be long and the trusses have little value for show purposes.

As a medium-size foliage plant of distinction a cross between *tsariense* and *fictolacteum* should have much to commend it with a deep green leaf and strong tan indumentum; the flower, too, is likely to be beautiful, deep pink in bud and heavily blotched when open.

I do not very much care for 'Vanessa', but I think 'Vanessa Pastel' is a lovely plant, so free flowering, of such beautiful colouring. To cross it with *wardii* should be interesting with a view to a

more open-faced flower, a yellow suffused pink colouring, and a tight well-formed truss.

The features of the great crosses made with *lacteum* are the beautiful shape of the individual flowers and the compact large trusses which sit so perfectly on a rosette of broad shaped leaves. But, to my mind, rhododendrons with very large formal trusses, so effective in a show, should be used rather sparingly in a garden. When in flower they add emphasis, but in the middle distance they give an impression of a bush decorated with toy balloons. To extend the flowering season of the *lacteum* hybrids and to obtain a flower with some scent, a cross with *auriculatum* is suggested.

To sum up, the six hybrids I should like to see produced are:

saluenense × 'Saint Breward'
wardii × 'Norman Shaw'
williamsianum × *diaprepes*
tsariense × *fictolacteum*
wardii × 'Vanessa Pastel'
lacteum × *auriculatum*.

Tremeer, N. Cornwall ERIC HARRISON

THE Editor of the *Rhododendron and Camellia Year Book* has asked me to contribute a short note for the 1970 issue of that work. In his letter he suggests it might be of interest if I took a 'speculative look at some lines of (rhododendron) breeding'. But with that genus surely the time factor virtually limits the breeder to only one "line of breeding", namely, to a single cross, either between two pure species, or between two cultivars or a cultivar and one pure species? This is so because nearly all of the larger-leaved rhododendrons take at least fifteen years, often considerably longer, to reach flowering age. Consequently, selective breeding with them is out of the question. By "selective breeding" I mean repeatedly crossing the plants of the same grex until one has succeeded in obtaining one's preconceived objective—be it a change in the colour of the flowers, a more compact habit of growth, or some other one's improvement. This method involves, of course, choosing from among each successive generation of seedlings individuals which you think are most likely to produce progeny that will further your aim.

That, at any rate, was the procedure I adopted when I set out to eliminate a certain feature I disliked in the flowers of some of my polyanthus varieties. By carefully selecting each spring the

seedlings I wished to breed from, I succeeded in less than twenty years in achieving my objective. But in their case, by sowing their seed in the cool greenhouse and then growing the seedlings to maturity out of doors, I was able to select potential parents for the next generation every year.

To attempt to accomplish a similar drastic change in a characteristic feature of one of the larger-leaved rhododendrons would be a very different matter. For one thing it would entail the use of several acres of ground to accommodate each batch of seedlings: for another it would need a period of two to three hundred years to produce the twenty or thirty generations that would probably be needed to achieve your improvement.

Clearly, then, with rhododendrons we will have to be content with only one, or at most, two crosses. This is a pity for the seedlings of most rhododendron crosses are extremely variable, and had selective breeding been possible, I feel sure some very astonishing changes could have been accomplished.

The Editor has also suggested that it would be of interest if I described the "six hybrid rhododendrons I would like to raise and see in flower". If I could produce a cultivar that possessed all the qualities I would like it to possess, I would be more than satisfied if I created, not six, but only one such hybrid!

What are the qualities I would have strived to obtain had selective breeding been possible? First and foremost I would have endeavoured to obtain a strong constitution for my hybrid combined, of course, with a good habit of growth. Secondly, I would have tried to get a shapely, well-filled truss—to have avoided producing one with drooping, long-pedicelled flowers. Thirdly, I would have aimed at intensifying the colour of my plant's blooms, to have tried to obtain purer and darker shades of blue and yellow: in the reds there is no room for improvement, there perfection has already been attained.

When I was engaged in hybridising some of my cherry species, on several occasions I successfully preserved the pollen of *Prunus campanulata*, a sub-tropical variety I wanted to cross with a hardy species, for six or seven weeks. If kept dry and in a uniform temperature (for this purpose I used a thermos flask) in all probability the pollen of most rhododendron species would remain viable for an equally long period. If so, its preservation would undoubtedly greatly enlarge the scope of any rhododendron hybridist—if indeed, any such optimists are still aiming at perfection!

Benenden, Kent COLLINGWOOD INGRAM

WHEN I look back to the days when as a school-boy I first came into contact with rhododendrons at Werrington Park, I recall the excitement I experienced when "crosses" which were made first came into flower. I have always kept in touch with developments there and still regard 'May Day' (*griersonianum* × *haematodes*) as one of the most successful garden plants. My most intensive period of hybridising rhododendrons (including deciduous azaleas) was during the ten years (1930–40) when I worked at Knaphill Nursery. I think perhaps that 'Sapphire' (*impeditum* × 'Blue Tit') gave me most satisfaction as a plant for the small garden.

So much for background, but what can I do for the future? I feel that the disappointments caused by seeing frost damage in April and May on so many occasions call for a programme of breeding late-flowered rhododendrons, but on the other hand I feel that by midsummer we have seen nearly enough, even remembering that 'Azor' and 'Polar Bear' are still to come.

I would concentrate on plants for the numerous small gardens which nowadays are so carefully nurtured by an ever increasing number of enthusiastic amateurs. Not everyone has a woodland, although by the careful selection and planting of suitable trees some shelter and shade can be provided.

I have thought for some time that *Rhododendron carolinianum* has been overlooked as a good potential parent in this country, although it has been used successfully in its native U.S.A. I saw numerous plants in flower in North Carolina in May 1967 and was impressed by its habit of growth and beauty of flower, these varied from white to an attractive rosy-purple.

There is a fine specimen on the western fringe of the wild garden at Wisley and several younger plants flowered very freely on Battleston Hill in 1969. The flowers tend to be hidden by the new season's growth.

I would make the following:

carolinianum × *oreotrephes*
carolinianum × 'Electra' cl.

I would add to the June flowering cultivars by crossing 'Pink Cherub' (*yakusimanum* × 'Doncaster') with 'Azor' (*griersonianum* × *discolor*). This should result in a well-shaped plant of much smaller stature than 'Azor', but gaining from its fine clear-pink flowers.

I have always admired the hybridising carried out at Glendoick by E. H. M. and P. A. Cox, resulting in such fine plants as 'Chikor'

and the new hybrid between *R. ludlowii* × *fletcherianum* which gained the F.C.C. at the Chelsea Show this year.

This has led me to believe that *R. glaucophyllum luteiflorum* 'Glen Coy' would also produce good compact-growing, yellow-flowered hybrids. I would cross it with *hanceanum* 'Nanum' and 'Yellow Hammer' (*sulfureum* × *flavidum*). 'Yellow Hammer' is very floriferous, but could perhaps do with a little more colour and larger flowers.

There should be good plants still to come from using 'Goldsworth Orange' (*dichroanthum* × *discolor*) which I must confess I do not altogether like as it is. I would cross this with *R.* 'Eddystone' ('Jervis Bay' × *litiense*). This should provide a good yellow-flowered hardy hybrid to follow the earlier flowering *R.* 'Moonshine'.

In all appropriate cases the very best forms should be selected as parents, and nowadays, either by storing pollen of the early-flowering plants, or forcing those which flower late, crosses can be made to give good mid-season hybrids.

R.H.S. Garden, Wilsey F. P. KNIGHT

AFTER an enforced ten-year gap in my hybridisation plans due to absence on parliamentary duties, it is rather fun to look forward to resuming again in a few years' time. Also this period has enabled me to study the results of my first programme and make some judgments about its successes and failures.

I have never had any intention of producing hybrids for the ordinary garden and I will certainly not enter that field in the future. For this reason, attractive as its offspring may be in the future, I will not use *yakusimanum* as a parent.

Basically I have tried to produce plants which will do well on the western seaboard. As I have never had a gardener since the war, I have equally tried to cross plants which will give a high percentage of acceptable progeny as I have neither the space nor the energy to grow several hundred plants to flowering size and then have to discard 90 per cent of them.

The basic characteristics that I thought were important ten years ago were:

1. A pleasantly shaped bush or tree with a reasonable chance of regular flowering once it has reached flowering size.
2. Good quality and substance of flowers, as this tends to give a longer flowering period and less damage from frost or hail.
3. Scent where possible.

I see no reason to change these aims for the future. I have also been influenced by the availability of really good forms. As in breeding any other animal or vegetable the crossing of inferior forms is essentially a waste of time.

In the post-war period the pollen parents that I mainly used were: *griffithianum*, *elliottii*, *haematodes*, and *meddianum*. In the more tender class *johnstoneanum*, *burmanicum* and *lindleyi* were also used, but a large proportion of these seedlings got lost in their early years as I was away too often.

As a result I have a good collection of superb reds from March to mid-June. I have some interesting pale pinks and whites and some creams.

For the future I will concentrate on more *maddenii* hybrids using *burmanicum*, *iteophyllum*, *odoriferum* (for smaller compact bushes) and *edgeworthii*, 'Fragrantissimum' and *lindleyi* for scent.

In the elepidote species I will use *vernicosum* and *souliei* as I have had some very graceful and excellent results from these, particularly *souliei* × *cerasinum* and *vernicosum* × *griffithianum*.

I hope in my first 'free' year to try thirty hybrids. You have asked me to nominate the six I think will be the best. All prophecy is dangerous but here at least is my guess—not in any order of preference:

1. 'Fragrantissimum' × *leucaspis*.
2. *burmanicum* × *iteophyllum*.
3. *odoriferum* × *lindleyi*.
4. *souliei* × *vernicosum*.
5. *souliei* × 'Brocade'.
6. *baileyi* × *campylogynum*.

Argyllshire, W. Scotland MICHAEL NOBLE

J. H. MANGLES, in his Rhododendron Notes on *R. metternichii*, has an interesting anecdote about Prince Metternich:

"Son Altesse le Prince de Metternich s'intéressant beaucoup pour la culture du beau genre Rhododendron en sorte même qu'une nouvelle et très belle variété du Rh. arboreum a été produite par les soins et dans les jardins de cet illustre amateur de l'horticulture, nous avons cru L^{e} (1835)."
(The l^{e} refers to l'année).

What a long way we have come in hybridising since those days when the great statesman interested himself in improving the rhododendron called after himself!

William Watson in his book *Rhododendrons and Azaleas*, published by J. C. and E. C. Jack, 67 Long Acre, W.C. and Edinburgh, at the beginning of this century, has a most interesting chapter on hybrids. Reference is made to Mr. J. H. Mangles and his work in the field of hybridising and the authors then asserted: "No good results have been obtained so far by using as breeders the large flowered *R. falconeri* and *R. eximium*." Exbury has disproved this: *R. falconeri* has produced R. 'Fortune' with the other parent *R. sinogrande*. I put this plant first in my list of "Five Favourite Hybrids" in the symposium for the 1956 *Year Book*, and then referred in 1960 to the poor results we had in trying to hybridise from *R. yakusimanum*, an experience that is not universally shared.

So consideration of "Six Hybrid Rhododendrons I would like to raise or see in flower" must make me look at possibilities and not probabilities. What should one go for, compactness of both truss and habit of plant, size of flower, time of flowering, colour, scent, hardiness? Probably all of these, and it is difficult to make clear-cut selections for rhododendrons are so varied, both as species and hybrids. What should one aim at, an improvement on one or preferably both parents?

I would like to raise:

1. Another form of R. 'Jocelyne' (*lacteum* × *calophytum*), early flowering, frost hardy, big leafed.

2. Another butter-yellow-flowered rhododendron, similar in colour to R. 'Crest' ('Lady Bessborough' × *wardii*), but different in form and habit.

3. A *R. yakusimanum* cross better than any we have produced at present.

4. A big bold red like R. 'Kilimanjaro' (*elliottii* × 'Dusky Maid'), but more hardy.

5. A rhododendron whose scent could be fragrant like the Javanese type shrubs that would thrive out of doors, and finally

6. Another general purpose plant as free flowering, hardy, as beautiful and as popular for all gardens as R. 'Naomi' ('Aurora' × *fortunei*).

There are, however, lessons to be learnt in raising new hybrids and they are:

(a) Ruthless destruction of all inferior plants,

(b) A cool appraisal for quality of flower coupled with good plant habits, and

(c) No quick judgment should be made after only one year of flowering. Even if a plant is thought to be up to "A" standard the first year, it will not necessarily be so good the second year. Consistency is of paramount importance.

Exbury, Hants. E. DE ROTHSCHILD

I. SEEDLING No. 317 × with Seedling No. 309 now named 'Ripe Corn'.

That strange critic of rhododendrons and his cranks know nothing of colour. Our countryside in autumn has many tints in its cornfields—pale barley straw, golden wheat straw and the intermediate almost pinkish tones of some of the varieties of oats combine to make our countryside extremely beautiful. I have always striven for these shades to be bred into the hardy rhododendrons and the most success so far has been through *Rhododendron dichroanthum* either in the form of 'Goldsworth Orange' or 'Dido', two most successful parents.

In Seedling No. 317 we have 'Champagne' × 'Hawk Crest'. This resulted in a golden yellow which is now being named 'Sunbeam'. Seedling No. 309 has been named 'Ripe Corn' and is subject to Plant Breeders' Rights as will also of course be 'Sunbeam'. No. 309 is 'Goldsworth Orange' × 'Exbury Naomi'. The result of this cross should fill in those tints of orange, pink and gold now so much sought in plants of good foliage and truss that will flower over a long period of the summer.

2. Some years ago I made a cross between *lacteum* and *caucasicum* in the form of 'Cunningham's Sulphur'. The plants are nearly up to flowering size now and have been planted out for the purpose of testing. They are squat like 'Cunningham's Sulphur', the leaves are broad, rather as *lacteum* and the plants are very hardy after their seed parent 'Cunningham's Sulphur'. Now what was the cross designed for? First of all *lacteum* has the most perfect truss and yellow colour of any species of rhododendron. Its time of flowering is round about the Rhododendron Show as is always 'Cunningham's Sulphur'. 'Cunningham's Sulphur' has extreme hardiness and the dwarf habit. We have attained so far

good foliage, hardiness and habit, we now hope for plants with a truss and colour of *lacteum*.

3. Number 3 that I would like to see is *repens* hybrid, 'The Lizard' × with 'Goldsworth Orange' or one of its hybrids. Some *repens* hybrids retain the creeping habit of *repens* and make a bush the shape of an upturned soup plate and when covered with scarlet trusses they are very beautiful. Many years ago I crossed Rhododendron 'Goldsworth Orange' the seed parent, with an outstanding form of *griersonianum*. The result was 'Tortoiseshell' and the various forms now numbered or named have varied from rich crimson through shades of salmon, orange, the soft yellow and purest white. Can it, we hope, be possible that we can get some of these shades in plants shaped like 'The Lizard'.

4. Number 4 cross that I would like to see will be *yakusimanum* × with Seedling? This seedling I will explain later.

Yakusimanum has been crossed with nearly everything from 'Pink Pearl' to a toothbrush. The results have been what one would expect and in a few tests I crossed it with 'Goldsworth Yellow' which gave some typical yellows and with 'Corry Koster' and we had tall flowered, frilly pinks as again, one would expect. Others have crossed with various pinks and reds and various not very outstanding pinks of different shades have resulted.

The Seedling? will be the very latest crosses I have of the orange yellows and orange pinks. Probably 'Mrs. Lindsay Smith' × 'Dido' (which is named 'Olga') × 'Goldsworth Orange' × Naomi 'Ripe Corn'. This particular cross flowered this year at a very early stage in its life and all the seedlings that are numbered are very beautiful shades and should give, to *yakusimanum* seedlings a new colour range not yet seen.

5. Cross No. 5 which I would like to see is 'Ilam Violet' × *augustinii*, best hardy-blue form.

I have often attempted to obtain a violet-blue rhododendron other than of the Triflorum-Lapponicum type. Unfortunately some of my early crosses of *concatenans*, the bridge plant, by which I hoped to get the russatum seedlings to marry with plants like 'Blue Bell' and 'Susan', perished in the war and as it will take a life time, I resign! Let others proceed!

However, 'Ilam Violet' is not only a fine colour but a strong grower and hardy and it is of the right blood to cross back on to *augustinii*. It was bred in New Zealand by a great nurseryman, Stead. I am fortunate in having a large blue *augustinii* that is not only of a good colour but is hardy. I have made this cross

twice but each time the frost has taken the seed. I live in hope that such a cross should give fine blues, deeper than *augustinii* and hardy enough for the normal English garden with flowers far bigger than 'Ilam Violet'.

6. Finally I would like to see 'The Master' × with Seedling No. 314 ('Mrs. L. Smith' × 'Dido') named 'Olga'. I have often laughed at myself by saying "I wish I knew where the bee went before 'The Master' was born". Since then I have realised that other seedlings of the same cross that have been repeated—it is 'China' × 'Letty Edwards'—resemble 'The Master' except for its extreme vigour; growth, leaves, flowers and truss are outsize. I think that mother nature must have juggled with the chromosomes and this child was born a tetraploid. This is borne out by the fact that it is difficult to cross with other plants.

It is fortunate that one cross has taken well. Seedling No. 314 is a 'Dido' cross again. It has strange salmon and terra cotta shades with dark red spots, frilly edges to the flowers and a well-built truss. It bears my wife's name, 'Olga'.

I am hoping that other, and pastel shades of 'The Master' will ensue, but this I now admit, no two seedlings will be the same and I expect a very wide range of colour, if they are of 'The Master's' size and vigour this is all to the good.

Woking, Surrey O. C. A. SLOCOCK, V.M.H.

IN answer to the question, "Six hybrid rhododendrons I would like to raise or see in flower" I think it best if, first of all, I indicate the various points or qualities looked for in judging a Rhododendron a good garden plant.

It should be hardy, of good constitution and a reliable "doer", preferably on its own roots, compact in habit and capable of ready increase by cuttings. The foliage should be abundant and of a pleasing green. The presence of a brown indumentum or silvery sheen on the undersides of the leaves, or an attractive colouring on the young foliage would contribute to its garden value, but would not be an end in itself. As for the flower, my own preferences are for the flat open type as seen in the cultivar 'Betty Wormald', the open bell-shaped flowers as seen in some of the *griffithianum* hybrids and the open funnel campanulate flower as seen in the best forms of *decorum*, though other shapes would not be condemned if colouring and truss were acceptable.

The type of truss should be a symmetrical pyramid as exemplified in the cultivar 'White Swan'. In this the individual flowers are

supported by strong pedicels springing at an angle of 45° from a stout elongated rachis, flowers and truss should be in keeping with the size and habit of the plant, but a well-balanced, rounded truss would be acceptable. Overall height should not be more than about 6 feet, so as to be suitable for the smaller garden. Tall robust cultivars such as 'Lady Eleanor Cathcart' and 'Polar Bear' are rather out of place in present-day conditions. Flowering period should be any time between mid-May and end of June.

Now for the six hybrids to embody these qualities. First, I would like to raise or see in flower a true blue rhododendron after the colour of *Salvia patens* or *Commelina coelestis*. We have several so called blues such as 'Blue Peter', 'Blue Ensign', and 'Blue Danube' but these are not really blue. Perhaps the geneticist, cytologist and biochemist, with their knowledge of behaviour and reactions initiated and controlled by the genes responsible for the production of flower colour, can indicate the path the hybridist could follow in trying to realise his ideal.

Next, two shades of rich salmon pink, one of a light tone and the other deeper in colour; such as are to be seen in our modern race of large flowered gladioli. These would be a welcome addition to present day hybrids.

Then there is room for a good buttercup yellow to flower at this time. There are many "yellow" cultivars available and others on the way but many can be faulted either in habit of growth, type of truss, freedom of flower as young plants or real hardiness.

Another colour which is lacking is a bright orange-red or nasturtium-red similar in tone to azalea 'Gibraltar'. Such a colour could be the forerunner of a group of hybrids which would greatly increase the colour range of present day hardy hybrids.

Lastly, a scarlet red that would stand up to normal weather conditions and not "burn" in the sun. We have many fine reds in different shades; all tend to burn in the sun and are seen at their best under light woodland conditions. Not all gardens are able to provide this.

The foregoing remarks have been deliberately confined to the hardy hybrid group of rhododendrons with which I am most familiar.

In contemplating the genus *Rhododendron* as a whole one cannot but fail to be impressed by the diversity in size, form and habit found in this remarkable group of plants and to pause in wonder and excitement at the vision presented to the mind's eye of the possibilities open to the enthusiastic hybridist.

Bagshot, Surrey P. WISEMAN

Photos: Harry Smith

PLATE 3 (*top left*)—Rhododendron 'Jocelyne', a magnificent hybrid of *R. lacteum* raised at Exbury (see p. 30); (*top right*)—Rhododendron 'Lionel's Triumph', another lovely hybrid of *R. lacteum* and one of the later clones made by the late Lionel de Rothschild (see p. 31); (*centre*)—Rhododendron 'Exbury Naomi', one of the finest of the earlier hybrids raised at Exbury; (*bottom left*)—Rhododendron 'Elizabeth de Rothschild', a splendid hybrid between R. 'Lionel's Triumph' and R. 'Exbury Naomi' raised at Exbury (see p. 32); (*bottom right*)—Rhododendron 'Repose', a more recent *R. lacteum* hybrid raised at Exbury (see p. 31)

RHODODENDRONS AT EXBURY*

By P. N. BARBER

THE story of Lionel de Rothschild and his Exbury Estate has been told many times and it is not my intention here to tell it again, but for the sake of those who may not know about it I think I should at least locate Exbury for them.

Exbury is situated on the estuary of the Beaulieu River and bounded by the New Forest. It is well-sheltered by the Isle of Wight and comprises, in all, some 2,600 acres. It was acquired by Lionel de Rothschild in 1919 and obviously he was influenced in his choice by the fact that it was climatically well favoured and had an acid soil suitable for growing rhododendrons, which at this time were beginning to play an important part in his life. It took him three years to rebuild Exbury House and to prepare for his onslaught on the surrounding woodlands (of which there were plenty) with a view to making a home for the rhododendron collection and hybridising programme he was determined to have and to carry out.

His plan was ambitious and in the short period between the two great wars he had more than his fair share of success. It is on his hybrids I wish to dwell and his entire programme over the twenty-year period is recorded in a small black loose-leafed notebook we always refer to as "Lionel's Stud Book". It is numbered LR 1 to LR 1210 which was the last hybridisation made before his premature death in 1942.

We must realise, of course, that men like Lionel de Rothschild, the late Lord Aberconway, the Loders, and the small group of other enthusiasts of the day were men all groping in the dark in their search for good breeding parents. In making a study of Lionel's Stud Book this is borne out only too clearly. It will be seen how he explored many avenues from which he proved the resulting progeny useless but continually he began again on a different tack. Let us look at some of these examples in his Stud Book.

LR 1—*lacteum* × *sutchuenense*. As far as I can see this was never registered and we have no more information about this, therefore

* Also published in *R.H.S. Journal*, Sept. 1969, and based on a lecture given to the Society.

Photos: Ernest Crowson of J. E. Downward

Fig. 2—Rhododendron 'Costa del Sol', A.M., April 29, 1969, when shown as *R.* 'Juanita'. Exhibited by Mr. Edmund de Rothschild, Inchmery House, Exbury, Southampton (see p. 186).

Fig. 3—*Rhododendron vaseyi* 'Suva' A.M., May 19, 1969. Exhibited by Mr. Edmund de Rothschild (see p. 190).

I assume that he burned the seedlings as being useless and not worthy of any further attention.

The next few crosses were *barbatum* hybrids and the only one he considered worth a name was *barbatum* × *strigillosum*, which he named Esperanza. We know this plant. It has not a lot of merit. We did give it one star in the Exbury Register but we do not propagate it. However, *barbatum* × *chaetomallum* is definitely a plant of merit and on the occasion of a visit to Exbury by Her Majesty Queen Elizabeth The Queen Mother, with her gracious consent it was named *Rhododendron* 'Castle of Mey' after Her Majesty's home in Scotland.

LR 9 was one of his early successes—*thomsonii* × *eriogynum*—which gives us 'Chanticleer'. A good rhododendron which usually wins a prize for us at the Rhododendron Competition, but it is not a great improvement on either of its parents.

As we turn over the early pages of the Stud Book we see he used *maximum*, *orbiculare*, *auriculatum*, *arboreum* and *bullatum* quite extensively, none of these producing any hybrids of real worth. The first good-quality hybrid is LR 60—*discolor* × *auriculatum*—which gives us 'Argosy' (Fig. 5). I have always considered 'Argosy' one of the finest late-flowering white rhododendrons, and wonder why it is that if one is asked for a late white hybrid invariably people say, "Have you a 'Polar Bear'?" The reason for this I am sure is that it has an easy name to remember. It is known in the same way that 'Pink Pearl' is known and therefore its reputation is established through the common usage of its name. It has its merits and, of course, the strong scent is one of them but I know of so many better-quality late rhododendrons than 'Polar Bear'.

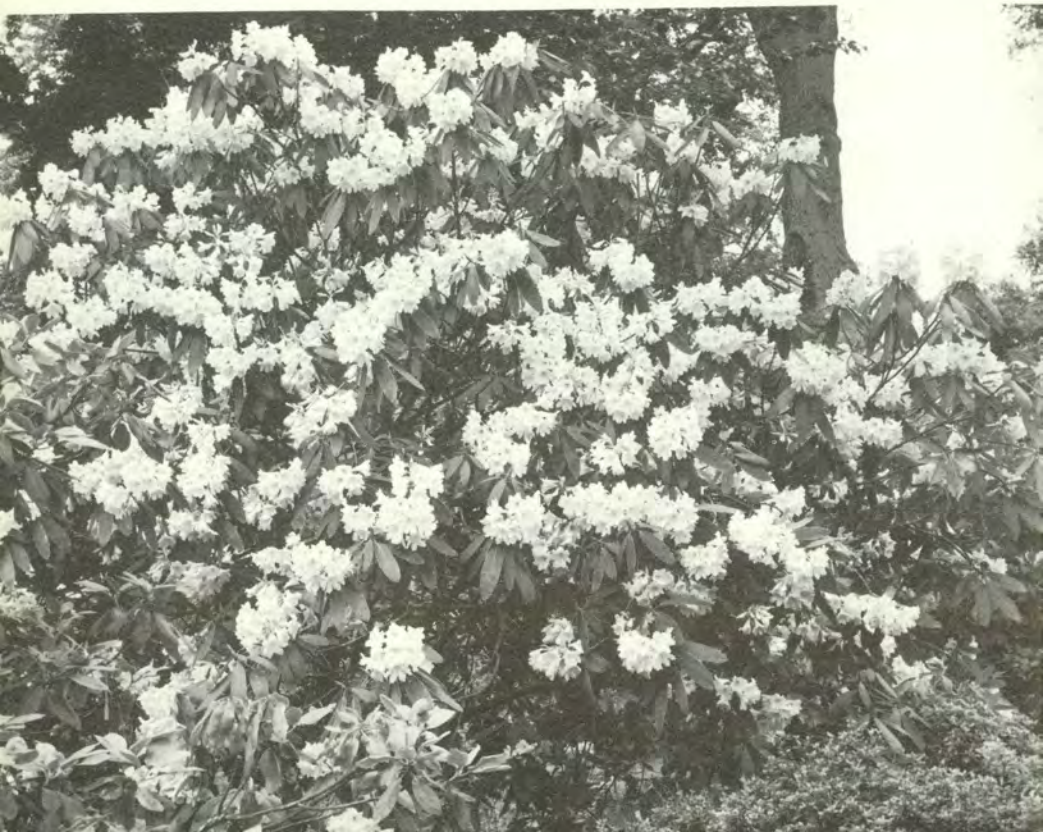
LR 100—*discolor* × *campylocarpum*—giving us *R.* 'Lady Bessborough'. This was perhaps one of the first of the modern garden hybrid rhododendrons to be used subsequently as a parent of other hybrids. It is worth noting that from our experience at Exbury we have discovered that flowers on hybrids of some age, and 'Lady Bessborough' is a typical example, do not have the quality of the flowers on younger, more vigorous plants. The original plant of 'Lady Bessborough' must now be well over forty years old.

LR 108—'Naomi' ('Aurora' × *fortunei*). This is now one of Lionel's best-known crosses and is nowadays planted extensively, due to the fact that it is extremely hardy and thrives in any part of the British Isles. It was one of the first hybrids that was used by Lionel as one of his breeding plants, evidence of this will be seen a little later on in the 400 group of crosses.

Photos: J. E. Downward

Fig. 4—
Rhododendron 'Charlotte de Rothschild', raised by the late Lionel de Rothschild at Exbury (see p. 33).

Fig. 5—
Rhododendron 'Argosy', a late-flowering hybrid raised at Exbury (see p. 27).



LR 122—*R.* 'Argosy', again. It will be seen that he did this repeatedly, he would make the cross a number of times and no doubt he used different forms of one or both parents. Unfortunately, we have no record at Exbury which ear-marked the actual plants which produced the Awarded or "A" seedlings from the cross. From LR 150 to LR 180 it would appear to me that he was trying to introduce some hardy blood into his rhododendrons. He used Van Nes hybrids, 'Purple Splendour', 'King George', 'Gill's Triumph', 'Boddaertianum' and most of them with *discolor* as the other parent. The best one out of this batch I think is 'Gill's Triumph' with *discolor* which gives us 'Antonio'. I do not think this is a very well-known plant but we think highly of it and the plant is practically as broad as it is high at about 20 feet.

LR 171 and LR 193 are both Loderi crosses with *discolor* giving us 'Albatross', but the 171 is a pink Loderi and the 193 just says Loderi. Therefore, it is fair to assume that the Award of Merit 'Albatross' is the one done with Loderi and gives us white flowers, whereas the 'Exbury Albatross', F.C.C., is the one done with the pink Loderi.

'Lady Chamberlain', g. and cl. 1930, F.C.C. 1931 (*cinnabarinum* var. *roylei* × 'Royal Orange Form'), is even more famous than 'Lady Bessborough', but not nearly as hardy. 'Lady Chamberlain' and her brood are something different from the general run of rhododendrons, being characterised by the pendulous, flared tubes of *R. cinnabarinum* (which is in the male parent's sap also), but much larger than in the species. The result is a truss of very distinctive and highly ornamental character, having five or more of these slim and elegant trumpets, loosely arrayed. The colour varies from orange to salmon, suffused with rose and shining in the sun with the luminosity of *cinnabarinum*. It flowers with prodigal abandon.

The shrub is of medium size and erect bearing, with beautiful leaves, the young growths tinted with blue before turning sea-green. It flowers in April–May and is highly esteemed in America. It is LR 178 in the Stud Book, with 'Lady Rosebery' immediately following.

Now at LR 196 we see the first sign of the Exbury Azaleas. LR 196 says, "Azalea Exbury Yellow selfed" and 197 says, "Exbury Yellow × 'Floradora' and crossed Best Pink". LR 198 is interesting because that is Exbury Yellow crossed with Azalea Red and Azalea White and this gives us the Hotspur cross. As is well known

there are so many different forms of Hotspur all varying from a deep red through the yellows to a pure white with a strong orange blotch.

Turning to the next page we find nothing terribly exciting except for LR 211—'Loderi' × *calophytum*—giving us 'Avalanche', in my opinion one of the great Exbury hybrids. On the ensuing page we see that he tried to improve *R. luteum* (*Azalea pontica*): he crossed one pontica with another and also made an attempt at an Azaleodendron—'Corona' × *luteum*. Also another Azalea crossed with 'G. R. Sims'. In the LR 300 numbers it is very obvious that he went off at a completely different tangent and began using *R. eriogynum* to a large extent. I have often said that this was a period when he was not producing very good results. By this I do not mean that they were all useless, I have already mentioned 'Chanticleer' and the other good one is 'Tally Ho' which I think is excellent and also is an example of very good naming because the red of 'Tally Ho' is really a hunting red. Of them all I suppose 'Romany Chal' is the best. This was produced by crossing *eriogynum* with 'Moser's Maroon'. It is a very vigorous plant of excellent merit and we have, believe it or not, taken a hundred layers off a large plant after only being layered down for nine months—all were well rooted. Apart from the fact that the *eriogynum* produced rather tender plants they also appear to produce, with a few exceptions, straggly plants.

Under LR 398 we see 'Naomi' × *campylocarpum*, which has given us 'Carita', but LR 399 shows "LR 108—'Yellow Throat' × *campylocarpum*". I can only guess that this is the 'Exbury Naomi' which has the biscuit-colouring in the throat (Pl. 3). LR 401, on the same page, shows the cross as LR 100 (which we will remember is *R.* 'Lady Bessborough') crossed with *griersonianum*, which was eventually named 'Day Dream', so it will be realised that we are now coming to some of the better Exbury hybrids. LR 416—*calophytum* × *lacteum*—gives us 'Jocelyne' F.C.C. (Pl. 3). All his *lacteum* crosses were excellent. I remember so well in the mid-fifties we found the plant of *lacteum* looking very sick and everything possible was done to save and propagate it. We tried grafting it on to various understocks but without success. We could not layer it in the ordinary way because it had a straight, tall, stem and we could not get the branches to the ground, so we built a platform and tried to layer on this. All to no avail and eventually the plant died. Nevertheless, it has left us some wonderful children, 'Jocelyne' being one of the very best of them all.

Let us now jump to the LR 700's. Under 708 we see his first cross of *wardii* with 'Lady Bessborough' which gives us the Hawks. Later on, in fact, one hundred hybridisations later on, at 804, he did the same cross but with a different *wardii*, and this is the one which produced the good 'Crest' (Pl. 1). The 700's also gave us 'Janet', 'Querida', 'Leo', 'Fusilier', 'Grenadier', 'Gibraltar', 'Glamour', 'Halcyone', 'Inamorata', 'Jasper', 'Idealist', and many others of equal quality. The 800's found him repeating his crosses, I have already mentioned the 'Hawk' repeated. 'Idealist' and 'Inamorata' were made twice more but we also see the beginning of the very good Exbury Azaleas. The 900's were repetitions again, but we also see the use of *repens*, *chaetomallum*, *apodectum*, and *dichroanthum*, but nothing particularly outstanding is shown other than 'Naomi' crossed with *lacteum* giving us, of course, 'Lionel's Triumph' (Pl. 3). The other one of merit in this group is *R.* 'Kilimanjaro'—'Dusky Maid' × *elliottii*—a first-class red, but unfortunately, somewhat tender (Pl. 4). Space allows me to mention only a few of the crosses he made, but from the last two hundred many are very well known today and I enumerate a few of them: 'Jan Steen', 'Jutland', 'Exbury Matador', 'Leo', 'Grenadier' 'Repose' (Pl. 3), and the very last-named hybridisation of all 'Prelude', which was very aptly named.

Now what of the post-war hybrids? These have been added to the back of Lionel's Stud Book but I am not going to treat them in the same way. I am going to select certain ones for comment. I want to make it quite clear, however, that because most of these resulting hybrids are in my opinion superior to the ones that we have already been talking about, the credit should still go to Lionel de Rothschild because the Stud Book we have been looking at sorted out the parents which showed us and other hybridists the way to go to obtain the quality we see in the new modern garden hybrid. Mr. Findlay, of the Savill Garden, put a note in the *Rhododendron and Camellia Year Book* showing how one of the finest modern yellow rhododendrons of the day, *R.* 'Queen Elizabeth II', was bred from almost entirely Exbury blood. Of this hybrid the parents and grandparents are: 'Crest' 'Idealist', 'Naomi', 'Lady Bessborough', 'Aurora', all these are Lionel de Rothschild's breeding, the only other blood being 'Loderi' which was produced in 1881.

The Edmund de Rothschild post-war crosses that I am selecting for comment are as under and the descriptions are taken from the Exbury Register.

Elizabeth de Rothschild, g. and cl. A.M. 1965 ('Lionel's Triumph' × 'Exbury Naomi'). This is a really outstanding new hybrid of splendid bearing and classic quality. The shrub, furnished with dark-green leaves, 6½ inches long that show both parents well, is robust, well balanced and well branched, and may reach 20 feet. The big, funnel-shaped flowers measure 4½ inches at the mouth and are of a deep cream pigment enlivened with chestnut spotting in the throat and displayed in a large, round, well-knit truss of some eighteen florets. Pictorially 'Elizabeth de Rothschild' seems to call for a woodland setting, though fully hardy. May–June (Pl. 3).
Exbury ratings: B, ****

'Edmund de Rothschild', cl. ('Kilimanjaro' F.C.C. × 'Fusilier' F.C.C.) 1963. This fine new rhododendron builds up into a strong, vigorous shrub that may reach 15 feet, of open growth, with deep, dark-green foliage, influenced by 'Kilimanjaro'. It becomes embellished with magnificent, well-built trusses of the deep red, unstained by blue, that Lionel would have delighted in, had he lived so see it. The blossoms are formed in wide-mouthed trumpets, taking mainly after 'Kilimanjaro' in their boldness and true, deep red. A valuable woodland shrub for carrying the season well into June (Pl. 4). Exbury ratings: C, ***

'Nicholas', cl. A.M. 1965 (*ponticum* × ?). This entirely new rhododendron, named after Edmund de Rothschild's eldest son, is a great surprise and an exciting one. In an establishment where everything is carefully regulated and recorded, it is one of only three rhododendrons of which the parentage is unknown. Conceivably the bee was responsible. The one thing certain is that *R. ponticum* was one of the parents, for the polished, dark-green, pointed leaves are very clearly of that species.

The colour is most unusual—a bright, glowing purple, known as Petunia Purple in the Horticultural Colour Chart, diversified in the throat and the upper lobe with a large and spreading white patch, on which appear a number of small green spots. The flowers are in the form of wide-mouthed funnels, and are carried in a large, shapely, closely packed truss of about nineteen blooms and are produced in the greatest abundance. They are of fine quality and bear little or no resemblance to those of *R. ponticum* (Pl. 4).

'Nicholas' is one of three similar shrubs at Exbury that have attained proportions of about 12 by 12 feet. The other two are inferior in colour but 'Nicholas' is far too good to be denied increase, especially as it fills a very patent blank in the colour range of the

larger rhododendrons. Moreover, it is completely hardy and should be quite at home wherever rhododendrons will grow. At Exbury it grows in full exposure. The season is May–June.

Exbury ratings: A, ***

'Bud Flanagan', cl. (? × *ponticum*) 1966. A chance hybrid found flowering for the first time in Witcher's Wood in 1962. This plant is now (1969) about 8 feet high by 7 feet across, compact and shapely, with *ponticum* very marked in the foliage and stems; it may ultimately grow to about 14 feet. It carries enormous, conical trusses of eighteen to twenty large, closely packed florets, which are a lively sparkling mauve emphasised by a large and spreading flash of very deep chestnut. The whole truss has a bold and almost piratical air and the plant is bone-hardy but may not be to everyone's taste. May–June (Pl. 4). Exbury ratings: A, **

'Charlotte de Rothschild', A.M., a new introduction in 1958. A clone of Sir Frederick Moore, g. Clean pink with crimson spotting (Fig. 4).

Cara Mia, g. and cl. ('Aurora' × 'Crest'), 1966, A.M. May 3, 1966. The last in this Register to be named and awarded, this is a new rhododendron of great beauty with open campanulate, recurved blossoms that are pale rose in the bud, opening to a paler rose, shading to deep cream and marked by a small, crimson flush in the throat, the whole floret suffused with a glow as of peaches and honey. The florets are borne on green pedicels from cream calyces with elongated lobes in trusses of twelve to fifteen on a shrub that will attain 16 feet. April–May.

Exbury ratings: B, ***

Charites, g. and cl. 1965 ('Carita' × 'Crest'). A new shrub of much promise bred from first-class parents, both of which show up well in their progeny. It has an upright and compact manner of growth with smooth foliage of mid-green, and carries well-built trusses of large, open-mouthed flowers of a good, firm, pale yellow. It stands up well to an exposed position in the garden. Sometimes wrongly spelt "Charitas". April–May.

Exbury ratings: B, ***

Fred Wynniatt, g. and cl. A.M. 1963 (*fortunei* × 'Jalisco'). A splendid new rhododendron named in tribute to Major Edmund de Rothschild's head gardener. The plant is tall but of compact and orderly habit. Its flowers, furnished with large, petaloid calyces up to an inch long, are openly campanulate and maize-yellow, the

petals margined with a flush of neyron-rose, and are carried in large, flat-topped trusses of up to ten blossoms—a charming and delicate combination. May–June.

The Fred Wynniatt grex has given rise to several meritorious new clones, which were exhibited at the Chelsea Flower Show of 1966. They are: 'Jerex', 'Joyful', 'Simita', 'Trianon'.

Exbury ratings: B, ***

Nimrod, g. and cl. (*irroratum* 'Polka Dot' × *calophytum*) 1963. This is a new introduction of high quality and great floral charm. The parentage is strongly marked, first of all in the tall, strong, well-built bearing of the shrub, which one might expect from both. *R. calophytum* shows itself in the long broad leaves, and 'Polka Dot' (Exbury's own award form of *R. irroratum*) in the tubular campanulate flowers, which are a tender pink, heavily speckled with brown, and carried in a large well-filled truss. 'Nimrod' flowers with the greatest profusion in April.

Exbury ratings: C, ***

Tzigane, g. and cl. ('Karkov' × 'Gipsy King'). Introduced May 1966. A new rhododendron of brilliant scarlet-crimson, five-lobed funnels, faintly speckled on the upper lobes and remarkable for their much enlarged, gamosepalous calyces, which are of the same colour and more than half the length of the corolla tube on the upper sector but undercut below, giving the flower a distinct hose-in-hose effect. They are borne in a well-composed truss to the number of fifteen or more on a shrub of good, rather spreading habit, not likely to exceed 11 feet. The sharply pointed leaves are 7 to 8 inches long, bearing a faint fawn indumentum. April–May.

Exbury ratings: C, ***

'Jungfrau', cl. A.M. May 1966 ('Marie Antoinette' × ?). Here one of Lionel de Rothschild's less distinguished hybrids has been crossed with an unidentified mate to produce an offspring of considerable merit. The shrub is tall and well built with dark-green foliage of medium length, bearing huge, conical truses of some twenty pale pink, openly campanulate florets. May.

Exbury ratings: B, ***

Our Kate, g. and cl. A.M. 1963 (*calophytum* × *macabeanum*). Named after Edmund de Rothschild's eldest daughter, Katherine Juliette, this is a new rhododendron of the highest order, but needing the best conditions for a broad-leaved rhododendron.

Seed from this cross between two giant Asiatic species did not flower until fifteen years after sowing, but it has now grown into a small tree some 15 feet high, with large, leathery leaves 11 inches long, coated beneath with a loose indumentum, easily removed by touch. The influence of the parent named after Mr. McCabe is therefore obvious. The flowers that result from the marriage are of great beauty, being a very pale pink, flushed with a deeper pink on the margins of the lobes and lit up by a sparkling ruby throat (a description that differs from the R.H.S. citation). They are openly campanulate and inflated in form and are arranged in an impressive, lax truss of some twenty florets.

The shrub has a fine, close-knit habit and handsome bearing and will certainly grow a good deal larger still. Altogether a great acquisition for gardens that provide the conditions it needs. Its season is April. Exbury ratings: C, ****

Zelia Plumecocq, g. and cl. ('Rosy Morn' × 'Crest'). An entirely new rhododendron named after Madame Plumecocq, the sponsor and organiser of the Valenciennes international flower show. It was shown in the British exhibit at Valenciennes in 1962, when it flowered for the first time, and is a variety of the greatest promise. The *souliei* grandparent (through 'Rosy Morn') is very marked in the large, open, saucer-like flowers of yellow tinted with pink, which are held up in a big, well-built truss; while 'Crest' is evident in the foliage and upright carriage. Registered in 1967. May.

Exbury ratings: C, ***

So these are just a few of the post-war hybrids—but has it been so difficult for us?—I do not think so, the spade work was all done by Lionel de Rothschild as his well-worn black Stud Book bears witness.

Acknowledgment

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Photos: Ernest Crowson of J. E. Downward

Fig. 6—Rhododendron 'Belle of Tremeer', P.C., April 29, 1969. Raised and exhibited by Maj.-Gen. E. G. W. W. Harrison (see pp. 38 and 190).

Fig. 7—A view of the house at Tremeer.

RHODODENDRONS AND CAMELLIAS AT TREMEER

By PATRICK M. SYNGE

TREMEER is in North Cornwall, between Bodmin and the Atlantic coast, about 8 miles north of the former and about 6 miles inland from the sea and only 2 miles from Bodmin Moor; so it does not have quite the favoured warm climate of some of the Cornish gardens by the South Coast. The rainfall is comparatively high, about 45 inches in the year. Major-General Eric Harrison bought the estate in 1939 but was not able to begin his gardening till after the war in 1946. But in these twenty-three years he has made a garden of great beauty and interest based mainly on his love of rhododendrons and camellias, but containing also a number of other complementary trees and shrubs to make colour through the summer and autumn as well as contrasting form, height and foliage. The land slopes pleasantly away from the house to the south-east towards two ponds and a mill leat; there are about 6 acres of garden planted for relatively easy maintenance, mostly with trees and shrubs.

A broad terrace runs along the front of the grey-stone house which reputedly dates from the fourteenth century, and steps flanked by two fine urns lead down on to a large lawn running almost the length of the garden and parallel to the house giving a feeling of air and space. Beyond the lawn, broad winding grass paths lead towards the water, among plantings of rhododendrons and camellias through an area which was originally mostly orchard. Fortunately there are several very fine trees, including an old *Cupressus macrocarpa*, while a majestic oak, underplanted with cyclamen among the ivy for autumn flowering, lies immediately across the lawn from the house. There are more trees providing wind shelter around the boundary, but most of the rhododendrons and camellias are grown free of overhead cover and so have developed into solid masses covered with flowers rather than the gaunt tall trees sometimes seen in Cornwall. So it is a garden of great colour, especially since General Harrison is probably more interested in hybrids than in species and has himself raised many of his finest plants.

In 1961 he married Roza, the widow of J. B. Stevenson of Tower Court, Ascot, and a real enthusiast for rhododendrons, especially for the species. The main collection of these, however, from Tower Court, had been moved to Windsor Great Park, but when she left Tower Court Mrs. Harrison was able to bring young plants and layers of many of her finest hybrids and a few of the best forms of the species, such as the very lovely 'Yum Yum', the award form of *Rhododendron tsariense*, now a fine plant 4 feet × 4 feet at the edge of the lawn.

As I write, in early May, the view is dominated by masses of the blue and mauve rhododendrons for which the garden is famous. Some flank the big lawn, while a large group opposite the house by the big oak contains a great variety of tones of violet-blue in strong colours (Pl. 5). Here are 'St. Breward' and 'St. Tudy', as well as General Harrison's more recent crosses of *augustinii* with 'St. Breward' and 'Blue Diamond'. 'St. Breward' and 'St. Tudy' are both considered to be crosses of *augustinii* and *impeditum*. 'St. Tudy' received an A.M. in 1960 and 'St. Breward' an F.C.C. in 1962. This is the same cross as 'Blue Tit', another of the finest blues and also raised in Cornwall by Mr. J. C. Williams at Caerhays Castle.

Unfortunately the largest plant of 'St. Breward' died from honey fungus in 1965, a disease which has been a very great scourge in this garden, but fortunately it is easily propagated and there were numerous smaller plants growing on. The Colour Chart description of its flower was Sea Lavender Violet HCC 637/2 by the old R.H.S. Colour Chart and the compact truss bore up to twenty-six flowers each 2¼ inches wide and 1¼ inches long.

There is no doubt that these hybrids are rather larger in flower than 'Blue Diamond' and a bit brighter and stronger in colour, but it is difficult to pick out one from the other as being clearly the superior. 'St. Breward' was raised from cuttings of an old plant of hybrid origin at the old neighbouring garden of Lamellen where the late Mr. E. Magor made so many interesting crosses. They are all very free-flowering, and make nice compact plants up to 2 or 6 feet in height and nearly as much across. In addition to several forms of *augustinii* and 'Electra', the cross of *chasmanthum* × *augustinii*, one of the most beautiful blues is the much paler mist-blue 'Belle of Tremeer' raised from *augustinii* × *rigidum* (*caeruleum album*) (Fig. 6). A beautiful tree of it grows in semi-shade by the pond and is now 15 feet high and General Harrison recommends some shelter from the sun for the paler blues. 'St. Breward'

and 'St. Tudy', however, seem to be particularly free from sun-scorch and fading.

General Harrison has raised a number of hybrids from *R. williamsianum*, rather dwarf, compact and free flowering plants. They would seem to have a great future for the smaller or medium-sized garden; all have maintained the beautiful form of bell of *williamsianum* while increasing the size. They also have the fine red colour of the young foliage which gives a second feature of interest after the flowering. 'Pink Pebble' from *callimorphum* × *williamsianum* is certainly one of the best and seems to be an outstanding plant (Pl. 5). It has been selected for Trial at Wisley. The bells are a good pink, clearer and larger than in *williamsianum*, slightly drooping, while the best bushes are rounded, 4 feet × 4 feet and covered with flowers. As the flowers age they fade slightly to a paler pink, but they still complement well the blues of the garden. Another very promising *williamsianum* hybrid is 'Pipaluk', with white bells, raised from 'Dr. Stocker' as the seed parent. Pipaluk was the polar bear cub of Brumas, after which another white Tremeer hybrid had been raised from 'Sincerity' × *detonsum*. Other *williamsianum* crosses raised here are 'Mystic', a larger plant with 'Barclayi' as the other parent, 'Maestro' from the same cross which received a P.C. in 1969, 'Pensive' with *irroratum* as the other parent. 'Piquante' is derived from *valentinianum* × *leucaspis* and is a pale yellow with deeper centre which is very promising.

Yellow-flowered rhododendrons are also well represented and there are some beautiful seedlings of 'Hawk' × *griffithianum*, as well as others from 'Logan Damaris'. The parent plant of 'Logan Damaris' is one of the most beautiful in the garden (Pl. 5), graceful and dripping with its deep lemon-yellow flowers, now a big bush of 8 feet tall and across, although moved from Tower Court, and now nestling under a tall *Magnolia* × *veitchii* which is only twenty years old, but is up to as many feet, and this year was flowering at the same time.

Strong reds have also been raised here most successfully and several featured in General Harrison's very fine group of eight hybrids which won the second prize at the Rhododendron Show this year, a class which General Harrison won in 1963. 'Zyxya' (A.M. 1966), which is likely for many years to retain the last place in the Rhododendron Stud list is by no means the least. The bells are a very strong scarlet-crimson, large, and making a fairly full truss. It was raised from 'Barclayi' × 'Elizabeth'. There

are several very fine plants of both parents in the garden, and 'Elizabeth' in particular made very strong mounds of scarlet, placed at the junction of two of the walks and clearly visible from the house. Another is 'Tara', rather later flowering and raised from 'Tally-ho' × 'Rapture'. It received an A.M. in 1964. A very promising batch of scarlet-red seedlings have been raised from 'Matador' × 'Gaul' and among these 'Foxhunter' is the first to be named. 'Tremeer' came from 'Arthur Osborn' × *eriogynum* and is later flowering, but excellent as befits its name. Another good batch came from 'Matador' × 'Barclayi'.

Some very pleasing, larger growing pinks have also been raised here, notably 'Bombardier' from 'Fusilier' × *griffithianum* while 'Vibrant' (*diaprepes* × *wardii*) is a good pale yellow, but many more could be named. A notable but slightly more tender hybrid is 'Actress' raised from 'Lady Alice Fitzwilliam' × *edgeworthii* (*bullatum*) and this promises to be a lovely plant for gardens which have some shelter and not too cold conditions. But there are over 1,500 rhododendrons and over 500 camellias listed and described in General Harrison's careful records of the plants in his garden. Over half the rhododendrons are from the owners own raising, a very rewarding and notable achievement, especially as his standards are high. From Tower Court came some particularly fine *lacteum* hybrids and there is also a young plant of the parent species. 'John Barr Stevenson' is a cross with 'Damaris' and *lacteum* and has large compact trusses of pale yellow flowers with large bells. Rather similar is 'Robert Keir' (*lacteum* × 'Luscombei'), named after the head gardener at Tower Court, which seemed to me a very promising plant (Pl. 5). I was glad to hear that both of these were being propagated and would be available in the future. The latter has yellow flowers slightly flushed with pink. From Exbury via Tower Court has come 'Fortune', a layer of the F.C.C. form, and two other layers of the same cross. This has already flowered and young seedlings are being raised from it.

Some of the most lovely plants in the garden, however, were *concatenans* hybrids and these have been used freely. The pale apricot pink 'Alison Johnstone' from Trewithen in Cornwall, was one of the most floriferous bushes in the garden, literally covered with flowers so that no foliage could be seen. There were several large bushes and it seemed a plant which should be grown much more widely. The flowers are individually not very large, but their abundance makes up. 'Peace', a very beautiful hybrid raised at Bodnant from *concatenans* × *rigidum* (*caeruleum album*) was close

Photos: Harry Smith

PLATE 4 (*top left*)—Rhododendron 'Bud Flanagan', a chance hybrid found at Exbury, of marked *R. ponticum* extraction (see p. 33); (*top right*)—Rhododendron 'Perdita', a beautiful clone of R. 'Halcyone' raised at Exbury; (*centre*)—Rhododendron 'Nicholas', another chance hybrid of *R. ponticum* origin which occurred at Exbury (see p. 32); (*bottom left*)—Rhododendron 'Kilimanjaro', an outstanding hybrid, raised by the late Lionel de Rothschild, which received an F.C.C. in 1947 (see p. 31); (*bottom right*)—Rhododendron 'Edmund de Rothschild', a hybrid of R. 'Kilimanjaro' raised by Mr Edmund de Rothschild and which received the A.M. in 1968 (see p. 32)

Photos: Patrick M. Synge

PLATE 5 (*top left*)—Rhododendron 'Pink Pebble', a *R. williamsianum* hybrid raised by Major-General E. G. W. W. Harrison (see p. 39); (*top right*)—One of the blue rhododendron hybrids, possibly *R.* 'St. Tudy' × *R. augustinii*, raised by Major-General Harrison (see p. 38); (*centre*) Evergreen azaleas at Tremeer (see p. 41); (*bottom left*) Rhododendron 'Logan Damaris' at Tremeer (see p. 39); (*bottom right*) Rhododendron 'Robert Keir', raised by the late Mrs Roza Stevenson and growing at Tremeer (see p. 40)

to one of the largest plants of 'Alison Johnstone' and its white flowers as well as its freedom of flowering made it outstanding. Behind was General Harrison's cross of *concatenans* × *oreotrephes* with pinkish-purple flowers. Another lovely hybrid with *concatenans* blood was Comely 'Golden Orfe', raised at Tower Court from a cross with Lady Chamberlain. From Tremeer raising also had come a fine batch of seedlings with rather larger and more substantial ochreous yellow flowers derived from (*cinnabarinum* × *maddenii*) × *concatenans*. These also had good foliage and waxy bells following the style of *concatenans*, but bigger. The largest trusses had eight flowers each, and the cross seemed a very promising one.

The larger-leaved rhododendrons are not represented here so freely as in some Cornish gardens, but apart from 'Fortune' there are promising young plants of *macabeanum*, *falconeri*, *mollyanum* and *arizelum*, while *sinogrande*, *rex* and *semnoides* have made good-size flowering plants, the latter, a magnificent bush 15 feet tall and nearly as much across, with large trusses of creamy-white bells, was a gift from Borde Hill.

When Mrs. Harrison came to Tremeer the problem arose of finding space for a number of old plants of Kurume evergreen azaleas from Japan. These were unique plants of historic interest. At Tower Court these had remained fairly compact plants, even growing in semi-shade. At Tremeer it was decided to put them in full sun and exposure and they have retained their character, the only trouble being the growth of grey lichen on the branches. It was found, however, that this could be arrested if not cured by a spray of a weak solution of permanganate of potash in the winter and the plants were not otherwise damaged. General Harrison and his very small staff went to work on the lawn and dug out two large straight-edged beds about 10 feet wide, one on each side of the steps, and these were later followed by two more nearer the ends of the lawn. They realised that the rather harder, strong colours of the Kurumes would look best on their own, separated from the beds of rhododendrons, and how right they were. The beds are most successful and when in flower their contrasting masses of strong patchwork colour look very well against the grey of the stone of the supporting walls and against the dark green of an old group of yews near one corner of the house. In the two main beds were planted Kurumes from a group of plants originally obtained from Yokohama, which Mrs. Harrison regarded for the most part as superior to the better known Wilson 50. One large plant of

each was moved and all survived. Among the finest I noted were:

'Shinim-agagino', deep pink, slightly deeper than 'Hinomayo' and very floriferous.
'Senjo', apple blossom pink, very lovely.
'Fudetsukasi', pretty pale pink, late flowering.
'Hinotsukasa', deep scarlet red.
'Gyokuko', apricot-red with small flowers.
'Harumji', white.
'Yozakura', deep pink.
'Shintzumi', a good white.
'Haru-no-Akebono', pink, late flowering.
'Wato-kagami', pale pink.

These are comparatively little known but are all good plants, capable of a spectacular effect (Pl. 5).

Also on the lawn is a vast mound of 'Cynthia' and 'Sappho' (the only survivors planted before 1939), two old hardy hybrids, the former of strong colouring. Growing over them is a good white form of *Clematis montana*. A plant of the very free-flowering 'Mrs. G. W. Leak' also attracts attention from visitors, albeit not being its owner's favourite.

Tender rhododendrons of the Maddenii Series have been kept together in a dampish dell near one end of the drive and include forms of *lindleyi* and *dendricola*, *headfortianum* and *chrysodoron*, as well as 'Actress', the hybrid mentioned above. General Harrison told me that it had a more open flower than 'Lady Alice Fitzwilliam' and it certainly had good foliage. Along the drive itself, which was planted with old flowering Japanese cherries and daffodils, a single plant of *maddenii* was the largest I had seen of this species 12 feet × 8 feet. With it were smaller plants of *manipurense* and in front a big Embothrium. Another interesting plant on the drive was the Tower Court 'Daffodilly', a form of *xanthocodon* with unusual yellow flowers and a beautiful plant which deserves wider propagation; planted beside it was the purple form of the same species; both are exceptionally hardy. By the drive a vast *Parrotia persica* was also notable, and it had been suggested to General Harrison that it might be the largest in England; the boughs had grown together and joined up in places. A very old standard *Garrya elliptica* also attracted attention.

By the house the drive continued to the stable yard, passing a steep bank which had been cleverly planted with heathers among

which had been cut large holes for the planting of dwarf rhododendrons and the result was very effective as well as being a very labour-saving treatment of a rather difficult site. Behind was a useful windbreak of old 'Cornish Red' rhododendron, a very old hybrid of unknown origin. Here, the first rhododendron to flower every year was the beautiful 'Snow Fairy', raised at Tower Court and probably an upright form of *R. moupinense*, but without the *mucronulatum* in its parentage with which it was registered. It was planted close to Camellia 'Donation' and in some years the two have flowered together.

Another very exceptional plant here was the big *impeditum* from Tower Court, absolutely compact, about 18 inches in height but 7 feet × 6 feet across and estimated to be probably about fifty years old. Even without much flower the beautiful blue tints of the young foliage made it outstanding. Near it was a specially good deep purple form of *saluenense*, very rich in colour. In the bays among the heathers were *russatum*, *scintillans*, 'Prostigiatum', *fastigiatum*, *imperator*, 'Intrifast' and *russatum* × 'St. Breward', a very promising cross. In the bed near the top we noted a good pink-budded *yakusimanum* and a very lovely form of *wardii* under a Forrest number, a present from Mr. J. P. C. Russell when he was at the Sunningdale Nurseries.

The rhododendron riches of the garden are great and we have only mentioned a small proportion, but the camellias are nearly as numerous and form General Harrison's other main interest. Even in early May the bushes of 'Donation' (cuttings in 1947), 8 to 10 feet tall, were still covered with flower. Its phlox-pink, semi-double flowers have great lasting capacity and few plants flower as freely. In this garden General Harrison has found that camellias do not suffer from honey fungus to the same extent as do the rhododendrons and this is a great advantage. There is a very big collection, over two hundred forms of *Camellia japonica* and twenty of *C.* × *williamsii* as many who have seen General Harrison's exhibits at the spring Camellia competitions must have noticed. Practically all are grown in full exposure and have made compact, free-flowering bushes, although here camellias are more tolerant of heavy shade and poorer conditions than are rhododendrons. Among the best japonicas General Harrison ranks very highly 'Haku-Rakuten', whose semi-double white flowers seem to stand up to bad weather and his bush is now 6 feet high. 'Silva' and 'Alexander Hunter' are two of the best of the single and semi-double reds in this garden. 'Alexander Hunter' is one of the

latest to flower. Among the *williamsii* 'J. C. Williams' with its beautiful clear blush, pink single flowers is still one of the favourites. 'Elizabeth Rothschild' is another very lovely single, just a little deeper and warmer in colour, while 'Elsie Jury' from New Zealand is regarded here as very promising and has large pink anemone-formed flowers. There are only small plants of the semi-double forms of *C. reticulata*, but there are two outstanding plants, 11 and 7 feet high, of the single form with wavy petals and of a rather darker pink than is usual. Of the Reticulata hybrids that have as yet flowered freely 'Leonard Messel' is outstanding, being almost as floriferous as 'Donation' and of a rather clearer pink.

A planting of eight varieties of *rusticana* camellias is of interest, showing generally as compared with *japonica* that they are very floriferous, smaller in flower and leaf, and less upright in growth. It would be interesting to know by trial, in a colder part of the country, whether this variety is hardier than *japonica*. General Harrison himself described a number of his favourite camellias in the 1966 issue of this Year Book and so it is unnecessary to duplicate his remarks here.

This very rich garden is open at various dates in the spring and early summer for The National Gardens Scheme and also, from time to time, for other charities. It is well worth a visit. I would like especially to acknowledge with thanks General Harrison's most generous help with this article as well as his kind hospitality, and also to pay tribute to the excellent state of upkeep of the garden and the way in which the plants are grown so compactly and well shaped.

Photo: Ernest Crowson of J. E. Downward

Fig. 8—Rhododendron 'Curlew', F.C.C., May 19, 1969. Raised and exhibited by Messrs. E. H. M. and P. A. Cox, Glendoick Gardens, Perth (see p. 185).

PUKEITI: NEW ZEALAND

By ROBERT HAIR

IT is eighteen years since Douglas Cook made the gift of land which brought Pukeiti into being. It is nine years since his first reference to the project in the *R.H.S. Year Book*, and five years since he wrote his more comprehensive article in Volume 18. The time seems ripe for a progress report and perhaps for a peep into the future. It could go some distance towards justifying the faith of Cook's generation and demonstrating that of the present one. Because of Pukeiti's infancy and its remoteness from the older seats of rhododendron culture, in spite of publicity many readers will be unaware of its whereabouts, let alone its purpose; an introductory sketch may be justified.

Pukeiti Rhododendron Trust is an Incorporated Society formed late in 1951, with a membership of twenty-three, all New Zealanders. Its purpose at that time was to grow rhododendrons, to conserve the indigenous flora and to protect the native birds. It commenced operations on 153 acres of bush-clad land 12 miles from New Plymouth, in the province of Taranaki, New Zealand, about the 39th parallel. Today, membership has grown to 3,000, including many of widely dispersed overseas origin; the concept has broadened, and thanks to the generosity of a second foundation member, the acres have increased to 900. They are cradled between the seaward and inland ranges flanking Mount Egmont.

Pukeiti's own contour and soil, like those of its lofty neighbours are legacies of successive volcanic eruptions which in ancient times brought into being the Sugar Loaf Islands off New Plymouth, and more recently the 8,260 feet cone of Egmont itself. In general terms the land falls north and west towards the sea, but the barrier of the coastal ranges breaks up the parallel drainage pattern, producing a fascinating succession of ridge, valley, peak and basin interspersed with crystal clear mountain streams. Pukeiti, "the little hill", 1,600 feet above sea level, dominates the domain to which it lends its name.

The soil is in most instances a depthless, yellow, granulated volcanic loam, the top few inches of which have mellowed to a deep chocolate brown. Though it is not highly fertile, generations of forest growth have added their quota of humus and leafmould

to a medium which is slightly acid and of perfect drainage—the pH factor is about 5·1.

Like most of the west coast of New Zealand, the climate of Pukeiti is governed by three factors, the prevailing westerly wind, altitude and proximity to the coast. Sited at between 1,000 and 1,600 feet above sea level, almost on the westerly flanks of the inland ranges, it is not surprising that Pukeiti's rainfall is unusually high. Over a period of twelve years since recording began, an average of 130 inches has been measured, in one bumper year 165 inches! Fall is fairly evenly distributed over the twelve months; mean temperatures too, show remarkably little range being in the 60 degrees bracket (Fahrenheit) during summer reduced by 10 or 15 degrees in winter; once or twice each summer the thermometer climbs to 80 degrees, but humidity remains consistently high. Rarely frosts of 16 degrees have been recorded though mainly in pockets; 8 or 10 degrees would be a more usual limit, while many incipient frosts are nipped in the bud by air movement or cloud cover. Hours of sunshine have never been recorded, but are relatively high since much of the precipitation takes place at night.

Before the coming of Pakehas (Europeans) the whole of Pukeiti was bush-clad, most of it still is, but with a difference. In the days when Maori feet alone trod the land, the forest, or bush as we call it, was virgin, unspoilt, free from predators human or animal, jungle-like but with closer affinity to the mountains than the coast. Great conifers Rimu and Miro (*Dacrydium* and *Podocarpus*) stood head and shoulders above the forest canopy, overlooked in turn by lofty Rata (*Metrosideros*) (Fig. 11). Lush undergrowth and scrambling lianes made passage in places almost impossible. Great tree ferns towered from the valley floor, while a wealth of filmy ferns and others of innumerable form clung to every vantage point, floor, trunk and overhanging limb. Epiphytic orchids and lycopods hung with pendent grace while stolid astelias squatted high in the forks.

That was 200 years ago; how the scene has changed, and yet in some ways, how little. Came the Pakeha, axe and saw, ground-grazing goat, canopy-cropping opossum. The future hung in the balance, but slowly the pendulum swung back, axe and saw were silenced, goats deterred, opossums restrained, peace returned to the forest, but at a price. The Rimu and the Miro had gone, so too, had the Rata except those still standing in great age and near death. But the Kamahi (*Weinmannia*) was still there, so too the Hinau (*Elaeocarpus*), the Tawa (*Beilschmiedia*), the Rewarewa

(*Knightia*) and the rest. The undergrowth had rejuvenated, the ferns were there again in profusion, indeed, the tree ferns more than ever before, an unexpected legacy from the saw-millers whose log-hauling tracks proved ideal nurseries for a myriad spores. Today, incredible colonnades of tall tree ferns (*Cyathea*) line the routes taken by the departing logs.

Nearly all of Pukeiti remains bush-clad, a fact which sometimes prompts the observation that we hold more than we require—never! Its rolling acres offer untold opportunities for conservation, its bulk provides protection and shelter and its contours an infinity of aspects and microclimates for future exploitation. If this brief word-picture conveys even a hint of Pukeiti's physical charm or of its illimitable potential, it will explain why the relatively simple concept of 1951 so soon became the wider, more ambitious plan being followed today.

For in 1951 few thought in terms of other than rhododendron, but not for long. The scope was so obvious and its implications so wide that the need for some such plan became urgent. The Trust was fortunate in having within its own ranks a man of very wide experience to be its author. Twelve months of concentrated study was devoted to the design subsequently approved by the Board. They made no wiser decision in eighteen years. Like other live concepts this one has grown and been modified in the light of experience, but basically never departed from.

After nearly two decades, in spite of diversification, the emphasis remains heavily on the genus rhododendron instanced by some 850 species, hybrids and varieties which now grace Pukeiti. Strong accent remains on the native environment as back-drop and ground-cover, complement and foil, sanctuary and conservancy. Some stress too is placed on rhododendron allies and other species of similar needs, but the theme has been widened to include other exotic trees and shrubs of aristocratic lineage, a native arboretum, perhaps later an exotic pinetum, spire-like trees to provide skyline, others to afford pattern from the air, herbaceous plants of woodland affinity, alpines. Pursuit of the theme has brought triumph, challenge, promise and some inevitable disappointment.

Pukeiti's only access is by Carrington Road, which for 3 miles separates the Trust's domain from the Egmont National Park south-eastwards. Several developed areas are approached from the road, including the headquarters midway on the frontage; all are linked by internal tracks leading deeply into the property. The central area, incorporating a handsome Lodge which includes

Photos: Douglas Elliott

Fig. 9—
A grass walk at Pukeiti leadin to the Hybrid Block with the Pouakai Ranges in the background.

Fig. 10—
Rhododendron sinogrande at Pukeiti.

members' quarters as well as the assistant curator's flat, is the focal point for all visitors. As such it has been designed to give a maximum and representative display over the longest possible season.

The winding tree-lined drive leading to the Lodge offers a congenial setting for dwarfer rhododendrons, evergreen azaleas, meconopsis, paeonies, hostas, rodgersias, astilbes, primulas, and erythroniums, nearly all difficult subjects in the warmer parts of New Zealand. The large lawn fronting the Lodge makes a special impact in an area so dominated by bush. The stone borders nestling around the Lodge impose a touch of formality in keeping with the building itself, just as the broad, winding borders on the periphery of the lawn bridge the gap between sophistication and wilderness. Those against the building offer every conceivable site for the alpine and other dwarf subjects which flourish there, while the wider ones on the lawn margin afford aspects of both sun and shade to their shrubby and herbaceous occupants.

In the background *Magnolia* × *veitchii* reaches 18 feet × 14 feet, *M. sargentiana robusta* 23 feet × 12 feet, and *Clethra arborea* 20 feet × 12 feet, all perhaps surpassing even Cook's high expectations. Rhododendron 'Winsome', 2 feet × 2 feet, a foreground subject in 1960 has required shifting back, and today is 6 feet × 8 feet and still growing.

Striking leaf and colour contrast is achieved by grouping blue myosotidium with yellow *Primula helodoxa*, while, again in part shade, self sown seedlings of *Meconopsis regia* and *napaulensis* flourish above a bold mosaic of hostas and rodgersias overlooked in turn by cardiocrinum. Dwarf rhododendrons include *lapponicum* and others of the series, early ones, 'Christmas Cheer' accompanied by 'Cilpinense' and 'Seta' as well as the parent species *ciliatum* and *moupinense*, larger growing late ones, 'Blanc Mange' and 'Panoply', with a wide range between. One border assumes a purple complex as 'Susan' burgeons from a carpet of primula 'Wanda', while azaleas 'Temperance', 'William Wylam', 'Purple Splendour' and 'Violacea Multiflora' ascend the same chromatic scale. The quaint rhododendron species *linearifolium* flowers compatibly among them. Other colour comes in spring from hamamelis and corylopsis, in autumn from skimmia, enkianthus and cotinus, in winter from Acer 'Seigan', and all the year brilliant gold from chamaecyparis 'Crippsii' (12 feet × 13 feet).

The land rises northwards from the lawn for a short distance before falling sharply into the little bush-clad valley of the Lodge

stream, itself the happy accompaniment of further bog and moisture loving plants. The rising land accommodates bold groups of *williamsianum* hybrids including a charming ivory-white form crossed with 'Penjerrick'. In the background, accented by a large clump of purple phormium grows the finest plant of *Rhododendron yakusimanum* in New Zealand, doubled since Cook's day, attractive always in form and leaf, even more so in apple blossom flower. Predominantly purple shades of Higo irises make a striking foreground to the magnificent sweetly scented stature of *Michelia doltsopa*, at 30 feet high and as much across, the largest flowering exotic in Pukeiti except perhaps *Cornus controversa* growing lower down the same valley. *Manglietia hookeri* nearby shows strong vigour too, but has been set back by wind damage.

The sunny border south of the lawn demonstrates the possibilities of camellias in this climate at least of reticulata type. Several New Zealand raised forms are doing well in company with Kunmings and 'Captain Rawes' though none equalling 'Donation' ($9\frac{1}{2}$ feet $\times$ 7 feet). On its seaward flank, the lawn escapes from its amphitheatre of trees, and gently overflows a low sunlit ridge. Here groups of 'Blue Diamond' contrast in colour with 'Parisienne' and 'El Dorado', while *Tsuga canadensis pendula* contrasts in form with *Thuya pyramidalis* and many other dwarf conifers.

This rather detailed description of a small area may be justified as indicating the style of planting near the Lodge, and illustrating the principles followed, first in linking the formal with the wild, and later, "wedding the exotic to the indigenous" to quote the phrase of Sir Bernard Fergusson, lately Governor General of New Zealand, used in expressing his approval of success achieved in this field, particularly with "rhoddies".

About a mile of broad, mowed grass walk links the Lodge with the Curator's residence, first skirting the rhododendron species area before passing through the Hybrid Block. These smooth green swards in some ways deny the plea for unity with the untamed background, but perhaps because of the very sharpness of their contrast exercise an extraordinary charm. In general terms, planting is marginal on these walks, seldom in depth except in the Hybrid Block itself.

Leaving the Lodge, the walk keeps step with a winding border of natives, circumnavigates several small islands of the Arboreum series, straightens out into the Bridge Dell before merging with

the main route. The native border includes among many shrubby and subalpine subjects two particularly striking ones in the shape of a giant broad-bladed, yellow variegated phormium and an unusual ground cover *Lycopodium densum*. In the arboreum islands the rhododendrons are intermingled with evergreen azaleas round a central group of native trees. Such rhododendrons as 'Heligan', *zeylanicum*, *delavayi*, *arboreum rubrum* (14 feet × 11 feet), *arboreum kermesinum*, *insigne*, *floribundum*, *ririei* and *argyrophyllum* feature here. Fascinating groups of evergreen azaleas continue to serve as foreground subjects in the Bridge Dell, backed by magnolias including *mollicomata*, *globosa*, *kobus borealis*, *watsoni*, *sieboldii*, *loebneri*, *macrophylla*, *sprengeri diva* and the evergreen *delavayi*. In opening the bush to accommodate exotics, particularly large ones like these magnolias, keen judgment is used to retain a background of strong character, for instance in the case of *Magnolia globosa* a beautifully bronzed group of *Myrsine salicina*. Indeed, extreme care is taken to preserve a virgin margin wherever encroaching native growth requires cutting.

The route to the Hybrid Block skirts the species area, climbing gently on a winding grass pathway lined by lush native ferns and sub-shrubs, pausing now and then to embrace irregular bays of rhododendrons, first, species such as *R. sutchuenense*, *fargesii*, *elliottii*, *kyawi* (11 feet × 9 feet), *johnstoneaum* and *decorum*, later, bays of hybrids. The track opens with almost startling impact, on the Hybrid Block itself, a relatively open area with deeply indented outline. An even more dramatic approach is by way of the species walk where the eyes are lifted by a broad vista of rhododendrons to the jutting crags of the Pouakai Ranges.

Very colourful in October and November, even spectacular, this area demonstrates the immense vigour and high growth rate possible in this part of the world, as well as the fact that progress in a pioneer field is by trial and error. Most of the rhododendrons, planted marginally in mellow sheltered situations have flourished. A few others among the very first planted, possibly of poorer nursery stock, set out in sour, bulldozer impacted conditions, have not withstood the exposed environment. This limited area is now being rehabilitated with due attention to lessons learnt. New Zealand raised hybrids and Loderi types find a congenial setting in the Stead Block, a winding extension of the hybrid area culminating in the Curator's domain. The 15 feet × 14 feet stature of 'Cornubia', the 14 feet × 8 feet of 'Royal Flush' and the 13 feet × 18 feet of 'Charles Smith' indicate growth

potential among larger hybrid types, although the 6 feet × 7 feet of little 'Impi' is even more impressive.

Retraced steps follow the sun-aligned verge of the valley separating the Hybrid Block from Pukeiti Hill, where new bays carved below the brow show great promise; a group of 'Antonio' F.C.C. with a foreground of fragrant 'Suave' comes to mind. The same valleyside is approached later at a point where an open sun-drenched hollow tilts towards the open face of Pukeiti, while tall tree ferns reach from the depths below. A sheltered, heavenly spot at any time, it becomes completely out of this world when the many random sited *Rhododendron nuttallii* are in flower. Grown from seed, showing slight variation, they more than fulfil the promise of their wafted perfume. They were large plants when set out but have been there for only three years; in ten they will beggar description. An earlier group near-by has already reached 11 feet × 8 feet.

The *Maddenii's* succeeded by other series of which details must be omitted, continue in more subdued vein in the shape of *ciliatum*, *ciliicalyx*, *polyandrum*, *crassum*, *taggianum* and *inaequale*, until excitement mounts again with the approach of *megacalyx*, *rhabdotum*, *dalhousiae* and finest of all, the great sweetly trumpeted *lindleyi*. Of one lime-flowered *maddenii* (Pl. 6), supposedly a form of *rhabdotum* from the garden of the Dowager Marchioness of Londonderry, an American woman said, seeing it loom from the mist framed by the gaunt outline of a giant rata, "I just don't believe it!"

It will have been noted that Rhododendron species have been grouped in their series, a system which has scientific merit, although in more orthodox surroundings it might be questioned on aesthetic grounds. At Pukeiti space is so great, and contour and backdrop so varied that no such objection is likely to be raised. In any case there is no doubt about the affinity of the large-leafed species for one another. The broad area set aside for their habitation slopes towards the northwest, is broken by one or two easy hills and bisected by several small valleys. Entirely bush-clad the locality yet contained many pockets without dense or high canopy. These were opened up judiciously and duly planted at generous intervals where they thrived exceedingly until the need for more light became apparent. This lack was remedied and the experience noted in subsequent years, but it was not until a group was planted in the head of a little open valley that inspiration came in a flash—more light, better drainage, immensely better viewing.

A careful survey revealed the perfect setting, the junction of two bushclad valleys separated by a high spur. The valley sides were felled but the spur top left intact, great care being taken to spare tree ferns and the more attractive sub-shrubs. A high-level contoured track was carved round the spur, completing a loop with an existing walk, as well as exposing to view a splendid specimen of the giant rata (*Metrosideros robusta*) so characteristic of the region. Large leafed rhododendrons 4 to 5 feet high were set out 40 to 50 feet apart, high on the valley sides, low, depending on vantage and species, *giganteum*, *protistum*, *mollyanum*, *beesianum*, *grande*, and so on. The Valley of the Giants had come into being, though lusty infants yet. This is the project upon which Frank Knight set his seal; perhaps he will forgive my quoting him, "I forecast that what I saw will in a few years time be one of the most spectacular plantings of rhododendrons in the world, and will attract visitors from every temperate country where rhododendrons are grown". Among earlier plantings of similar forms *R. giganteum* has reached 15 feet × 10 feet, *grande* 14 feet × 11 feet, *decipiens* 11 feet × 10 feet.

All the areas so far described are within easy walking distance of the Lodge. Space does not permit detailed description of others, interesting though they may be. An important one is the Richardson Block towards the western end of the property, approached by Carrington Road, or by way of the native arboretum, a mile of beautiful bush walk crossing several mountain streams including the largest in Pukeiti. Deciduous azaleas provide the motif for the Richardson area, where so far Ilam hybrids predominate, although species such as *schlippenbachii* and *pentaphyllum* also flourish (Fig. 12). Further development using the wide range of American species already in the nursery could make this a favourite rendezvous for lovers of that group. The native arboretum is designed for the display of indigenous species not growing in the locality. Already little forests of the northerly Kauri (*Agathis*), the celery-topped pine (*Phyllocladus*), cedar (*Libocedrus*), beech (*Nothofagus*) and many others are established there.

Towards Pukeiti's eastern boundary lies the Cook Block, perhaps some day to rival the Home Block itself, certainly to complement it. Of totally different aspect and topography, it includes a sub-alpine road now tar-sealed as predicted by Douglas Cook, which climbs the sunny northerly face of Pukeiti proper, giving alternating views of the inland ranges, the farm lands below, and ultimately from the summit a commanding sweep of

coastline from New Plymouth to Kawhia, half way to Auckland. To the west, the coast stretches to Cape Egmont and beyond, the horizon broken only by the bold outline of the seaward ranges. Some day, when finances permit, a third staff house will be built near the Cook entrance, making major development possible. Until that time people can still rejoice in the superb landscapes which captured Douglas Cook's imagination more than eighteen years ago.

Much could be written of Pukeiti's unique constitution. Owned entirely by members themselves, unsupported by local body or government funds, the Trust propounds its own policy, administers its own property with a small resident staff of two, aided by two good casual labourers and the voluntary help of members themselves.

This brief description of Pukeiti, the concept, the land, the climate and the plants has taken little enough count of the human element. The fruits are there for all to see, but the vision, dedication, generosity, enthusiasm and the terrific drive of the early members who made it all possible can only be guessed at. The wonder of it lay in his mind, when the late Griff. Williams, the Board's first chairman, remarked at a gathering in earlier days, "Pukeiti can't be, but it is!". The spirit of voluntary effort which reached its finest flowering in those days still flourishes and offers Pukeiti its greatest hope of perpetuity. It will have been noted that personal names are conspicuous by their absence. Where so many have done so much, including people from Great Britain and elsewhere, it seemed invidious to name a few.

The Editor's limits have already been over-stepped. Nothing has been said of enchanting riverside walks, of others deep into the hinterland, of a new one at sub-alpine level looking down intimately on Pukeiti's rhododendrons, of plans to restock the bush with its vanished native conifers, of the quest for new and better forms, of high hopes for establishing many New Guinea species, or indeed ultimately, of exploiting the real possibility that Pukeiti could accommodate as wide a range of genus rhododendron as any other place on earth.

When to visit? Worthwhile at any time, but the rhododendron season is heralded by 'Christmas Cheer', in July and ushered out by 'Europa' in February, climax being reached in the second half of October. Overseas visitors from the R.H.S. warmly received.

Fig. 11—
Metrosideros robusta, the Giant Rata at Pukeiti (see p. 46).
Photo: Douglas Elliott

Fig. 12—
Ilam Azaleas in the Richardson Block at Pukeiti (see p. 53).
Photo: Douglas Elliott

THE NEW R.H.S. COLOUR CHART AND CAMELLIAS

By SIR GILES LODER BT., V.M.H.

THE recent introduction of The R.H.S. Colour Chart has greatly simplified the task of accurate colour description. Bound separately in four parts, each opens up into a fan showing the complete range of shades in that particular colour group. The tones are clearly numbered, and being in such an easily handled form can be taken to the plant in question and matched exactly. The subtle differences in hues need no longer be described by the rather mythical terms of rosy red or blush pink.

When dealing with camellias nearly all the pink through red combinations are to be found in Fan No. 1. The recordings have been made from camellias growing in a cold glasshouse at Leonardslee. Obviously slight variations in colour may be caused through climatic conditions, also age of flowers and length of exposure to sunlight or shade; the following observations have been made from flowers actually growing on the bush in many conditions of light, not from cut flowers. Gibberellic acid has never been used which might otherwise affect both size and colour.

japonica	*R.H.S. Colour Chart No.*		*Size of flower where measured (inches)*
Ada Pieper	50A		5
Adolphe Audusson Special	50A	blotched white	5
Augusto Pinto	51B	white edge	
Ballet Dancer	55B	shading to cream at centre	4½
Barbara Woodroffe	56D	shading to cream at centre	
Betty Sheffield		white, sometimes blotched 55A	
Betty Sheffield Supreme		white, bordered 52B	
Betty Sheffield Blush	55D	marked 55A	5
Bryan Wright	56B		4
Cara Mia	56C		
Cardinal's Cap	45B		
Carter's Sunburst	56C	streaked 55A	5
Charlotte Bradford	52B		4
Cinderella	155B	streaked 55B	
Clarise Carleton	51A		
Coquetti (Glen 40)	46C		4½
Coral Pink Lotus	56A		
C. M. Wilson	55B	at base shading to 56C	

Photos: Rob Hair

PLATE 6—The "Lime Maddenii" at Pukeiti (see p. 52)

PLATE 7—Rhododendron 'Cadis', a hybrid of medium stature raised by Mr Joseph Gable, growing on Eastern Long Island (see p. 115)

Photos: Plates 8, 9 Ernest Crowson of J. E. Downward—Plates 10, 11 James Smart

PLATE 8 (*centre left*)—*Rhododendron konori* 'Eleanor Black', A.M. July 15, 1969 as a flowering plant for the cool greenhouse (see p. 187). PLATE 9 (*centre right*)—*C. japonica* 'Augusto L. Gouveia Pinto', a sport of C. 'Mathotiana' (see p. 64). PLATE 10 (*bottom left*)—*C. japonica* 'Katherine Maryott' (see p. 64). PLATE 11 (*bottom right*)—*C.* 'Lila Naff', a hybrid of *C. reticulata* (see p. 68)

	R.H.S. Colour Chart No.		*Size of flower where measured (inches)*
Dainty Maiden	55C	fimbriated outer petals	4½
Deep Drift	155D		
Don Mac	46C		
Drama Girl	52A		7
Edelweiss	155B		4½
Eleanor Hagood	56C		
Ellen Sampson	46C		5½
Evelina	155D		
Extravaganza	50A	stripes white	
Fashion Note	56D	to white	4¾
Felice Harris	56C		
Flamingo	56B		
Flowerwood	52A	shading to 52B	5
Gail Evans	56D		4½
Gauntletti (Lotus)	155D		
Geisha Girl	56C	speckled and streaked 55A	
Gladys Wannamaker	56C		5
Grace Bunton	55B	shading to cream	4
Guest of Honor	52A		6
Guilio Nuccio	52A	to 50A iridesent rim	6
Hakurakuten	155D		5
Hawaii	56D	base 55C	
Hazel E. Herrin	52B		
Jean Lyne		white streaked 54B	
Jessie Katz	46C		4½
Joseph Pfingstl	52A		
Julia France	56C		
Judge Solomon	52B		4
King's Ransom	56A		
Kramer's Supreme	50A		4
Lady in Red	46A	shading 46B	5
Lady Macon	52C	veined 52A	6
Laurie Bray	56D	veined and shading to 52C at edge	
Lawrence Walker var.	45D	spotted white	
Lucy Hester	52B		5½
Little Bit	53C	striped and flecked 56C	
Magpie City	46B		
Magnolia Queen	49D		
Margaret Short	52B/C		4½
Mathotiana Supreme	52A		
Mattie O'Reilly	52B		
Melody Lane		white streaked 52B	5¼
Miya	56C		
Miriam Stevenson	46D		5
Mrs. D. W. Davis	56D	fading to white	7
Nancy Bird	56C	veined and occ. blotch 54B	5
Nadine Eshelman	55C		5
Pauline Winchester		white streaked 52C	5
Pearl Maxwell	52D		
Pink Champagne	52C		
Pink Clouds	55D	fading to white	5
Princess Lear	55D		4½
Purple Emperor	52A		5
R. L. Wheeler	52B	veined 52A	6
Red Elephant	52A		
Reg Ragland	52A		

	R.H.S. Colour Chart No.		*Size of flower where measured (inches)*
Richard Nixon	56D	striped 51A	5
Rosea Superba	52A	veined	
Saudade de Martins Branco	50	marbled white	5
Shiro Botan		white	4
Shiro Chan		white 56C at base	
Simcon	52A		
Sol de Oro	46B		
Spring Sonnet	56D	edged 55B	
Teresa Ragland	52B		4½
The Pilgrim		white 155D	5
Tic Tock	52C		
Tickled Pink	52C		
Tomorrow	52A		
Tomorrow's Dawn	55B	shading to white edge	
Tomorrow Parr Hill	49D		
Velma Grantham	49D	marked 52B	
Ville de Nantes	46A	splashed white	
Virginia Robinson	56A/B		
Vulcan	52A		4½
reticulata			
William Hertrich	53C	veined 53D	
Butterfly Wings	55A		
Confucius	55B		
Lion's Head	53C	veined A, some white blotches	
Shot Silk	57C		
Captain Rawes	55A	veined 52A	
Mary Williams	55A		6
Noble Pearl	54A		
Robert Fortune	53C		
Buddha	55A		
Crimson Robe	53C		6½
Purple Gown	55C		5½
Hybrids			
Anticipation	52A		5
Bonnie Marie	56B		
Brigadoon	55B		
Carl Tourje	55B		
Elsie Jury	55B		
Grand Jury	55B		
Howard Asper	52C		
Inspiration	55A		
Leonard Messel	55B		5½
Mildred Veitch	56C		

MY CHOICE OF CAMELLIAS

By JAMES SMART

AS a comparative beginner in the camellia world I must confess to a certain diffidence in committing myself to print. Having had the good fortune to have a reasonably prolonged stay in the United States between January and April 1968, following on a more brief look at camellias in Portugal and Northern Spain in February and March 1967, I will, however, venture to voice some comments on some camellias which I found unusual or particularly outstanding.

I would emphasise that this is a matter of personal choice and I mention the cultivars which are attractive to me and not necessarily those which are rated most highly in popularity polls; although I have grown some of them, the majority are cultivars which I have not yet bloomed in England but have seen growing in gardens in very different climatic conditions to our own. My own plants of these are as yet too small to be able to say how well they may do in England.

For those unfamiliar with the growing conditions in the fairly large area of the southern United States which I visited, the wide and rapid fluctuation of temperature during the winter blooming season and the very hot summers are very striking features. After scraping the frost off the windscreen of the car in the morning it was not at all unusual to find the temperature at 60–70° F by mid-day. The heat of the summer sun necessitates considerable shading by trees or lath shelters; the wood matures quickly and buds set far earlier in the season than they do in England.

The Camellia must be an extremely robust plant to compete with such contrasting conditions as those in America and also with our different climatic problems here. These conditions account no doubt for the different behaviour pattern of any one individual camellia on the two sides of the Atlantic. This behaviour includes the performance of the actual plant, the quality of the flower, and more particularly their form.

As to the performance of the plant I would cite particularly 'Lady Clare'; its semi-recumbent habit in England contrasts with that which I have seen in America. There it is an upright plant of

considerable vigour with a semi-double flower quite unlike our own. The habit is so unlike that I even wonder whether this is a different plant growing under the same name. I hope to grow the American variety here to see how it compares with our own.

For quality of bloom I think the climate of the United States suits many of the Japonicas better than our own, but the × *williamsii* on the whole, show a very poor performance there, and are in addition very prone to die-back in the Southern states. 'Donation' is a shadow of herself in America for colour, texture, and vigour. We are also fortunate in this country not to have their degree of disease. There Scale is a very major pest and with Petal Blight in California mars many plantings.

As to the form of the bloom, I do not know whether it is the climatic conditions, or the soil, or other factors which influences the differing form shown by the same cultivar in the two countries. Whatever the cause there seems to me to be no doubt that there is a tendency to have a re-grading of the bloom on this side of the Atlantic in the direction of more petals or petaloids; thus the semi-double blooms often become anemone-centred, and the anemone-centred may become paeony-formed.

'Drama Girl' was a semi-double wherever I saw it in the States—here it is anemone-centred. I find the same applies to 'R. L. Wheeler' and 'Reg Ragland'. 'C. M. Wilson' was consistently anemone-centred in America: when I grow it, it is paeony or rose-formed. Is this difference in number of petals and/or petaloids due to the speed of reaching maturity from the heat of the sun? Some experimentation with temperature control under glass in this country may prove interesting.

The genus *Camellia* has enormous attraction and this may be broken down into several component parts:

1. Time of blooming.
2. Wide variety.
3. Nature of the foliage.
4. Broad scope for future development.

1. Their time of blooming. With the help of a cold greenhouse and outdoor plants combined, it is possible to have bloom in England for about eight months of the year, and in California, Colonel Frank Reid of Pasadena reports blooms on his plants in every single month by dint of pinching out the first growths to get late bloom and the use of gibberellic acid to secure the early ones.

2. Their wide variety. There is a tremendous range of variety in habit, form, and size of flower, from the dainty grace of some species such as *fraterna*, *rosaeflora*, *cuspidata*, etc. to the enormous blooms of the Kunming reticulatas and some of the japonicas such as 'Drama Girl' or the hybrids such as 'Howard Asper'; there is the range of habit, fastigiate in 'E. G. Waterhouse', procumbent in 'Lady Clare', spreading in 'Elegans', weeping in 'Tiny Princess'. There is even the scent in *lutchuensis*, *fraterna*, and the sasanquas.

3. Their foliage. The leaves have always been accepted as a great asset for the camellia with their constant high gloss, deep green, and toothed edges, rendering the bush decorative throughout the season when it is not blooming. It is only recently, however, that I have come to appreciate the pleasure that can be derived from their varied characteristics; taking the species first: there is the small lanceolate elliptic foliage of *fraterna*, *cuspidata* and *lutchuensis*, with their rosy-red young shoots in the spring. The equally small but more rounded leaves of *maliflora*, and the tiny tapering leaves of *tsaii*. The small but dense foliage of the sasanquas, large bullate leaves of *granthamiana*, bronze in the young shoots, the sparser foliage of *reticulata*, leathery, heavily veined and toothed, and usually with a bronze coloured young growth. There are the long, large, brighter green leaves of species such as *hongkongensis* and *yunnanensis*, unrecognisable as a camellia to the casual observer. Amongst the japonicas it is not generally appreciated what a wide range of form and colour there is in the leaves. Even grown under exactly similar conditions, some will have an almost black-green colour whilst others are comparatively light. Some are oblong, others more nearly round; some are smooth edged, some very deeply cut. 'Arejishi' is always recognisable for its deeply-cut long leaves. There is a wide range of size too among the japonicas: there are the huge leaves of 'Drama Girl' and 'Coronation', not to my mind as decorative as they tend to hang down too much on the bush. Other cultivars with outsize leaves are 'Masterpiece', 'Moonlight Sonata' and the hybrid 'Howard Asper'. There is also the twisted, holly-like foliage of 'Lady Vansittart' and its progeny, 'Yours Truly', etc.

Among the japonicas there are also one or two unusual forms: there is 'Quercifolia', or 'Kingyo-Tsubaki', one of the parents of 'Guilio Nuccio', which usually has a few of the characteristic

"fish-tail" leaves of this variety on it to betray its parentage. Another quite unusual japonica is 'Sakuraba-Tsubaki' grown as 'Cherry Blossom'. This has a striped pink and red flower of no great distinction, but the leaves are almost indistinguishable from a flowering cherry. It is certainly more "Prunifolia" than "Pruniflora"!

The hybrids of course have an understandably wider variation in leaf form. It is often obvious from the leaf what at least one of the parents of any hybrid may have been. *Granthamiana* and 'Buddha' come through particularly strongly and can nearly always be picked out. 'Tiny Princess' with its weeping habit and small leaves betrays its *fraterna* parentage and Howard Asper's "The Girls" have fairly small leaves which show 'Narumi-Gata' influence as well as their *reticulata* parentage. The hybrids with *reticulata* blood in them have recognisable leaves, but the *japonica* blood makes for a better covered bush and a brighter leaf, even in varieties such as 'Howard Asper' and 'Diamond Head' which have *reticulata* size and quality flowers. Howard Asper is the distinguished hybridiser of camellias from California, and "The Girls" refer to 'Flower Girl', 'Dream Girl' and 'Show Girl', which have been introduced by him during this last season. These look like becoming good garden plants with a better habit than *reticulata* and very floriferous.

Those with *saluenensis* in their parentage, the × *williamsii* and Doak types, have, of course, a very distinctive foliage, and here the habit varies widely between such varieties as 'J. C. Williams', with a fairly compact upright habit and 'Philippa Forwood', very similar in flower and leaf, but with an open habit with dainty sprays. Here again there is a characteristic distribution of leaves in 'Hiraethlyn' with a fern-like symmetry about the placing of the leaves. 'Francie L' is a large-flowered hybrid with unusual strap-like leaves, especially in the early stages. 'China Lady' is a newly brought out hybrid, 'Buddha' × *granthamiana*, with long, narrow, beautifully marked leaves. 'Leonard Messel' stands out with its *reticulata* influenced leaf with a reddish base of the leaf rib and an upright alert habit which together make the bush instantly recognisable when out of bloom.

Finally there are the variegated leafed forms. Of these I find 'Golden Spangles', the variegated leafed form of 'Mary Christian', too indefinite, but there are one or two others amongst the japonicas which provide a bright contrast to the other camellia foliage.

One could do worse than have a corner of a camellia shrubbery

devoted entirely to the different forms of foliage which could be of interest throughout the year.

I have dilated on the subject of the foliage because I find it omitted from many references to the genus: the leaves are scarcely mentioned at all in *Camellia Nomenclature* which is the most authoritative listing of cultivars in the United States.

4. The broad scope for future development provides a stimulus; firstly, the camellia is constantly producing different sports: some, like 'Tomorrow' and 'Betty Sheffield', never tire of turning up with another variation; 'Betty Sheffield' has provided more than a dozen named and registered varieties. Hybridising has produced many more cultivars as seed sets readily in the warmer climates, and the crossing of species, and more particularly the possibility of storing pollen so as to produce interspecific hybrids between plants blooming at different times of year, is producing some extremely interesting new varieties and should provide a stimulus for many years to come. There is the ever sought after yellow camellia yet to come out of Vietnam, and to me, the much more interesting possibility of introducing and/or intensifying scent; this should be helped by the use of *lutchuensis*, the most fragrant of the species and by the crossing of the autumn flowering but fragrant sasanquas with the larger, better formed, blooms of the spring flowering japonicas and reticulatas.

I appear to have followed every diversion on the road before arriving at my original destination: this was to discuss some of the camellias which I personally regard as outstanding.

First in priority of attributes for the outdoor plant comes the quantity of flower on the bush at any one time, and the way in which they are presented. Here 'Guilio Nuccio', grown in the open garden in America, must take a very high rating, whilst 'Mrs. D. W. Davis', although a beautiful pale pink bloom of enormous size, must be way down on my list because she hangs her head, and to look at the flower one must pick it up in the hand. For a really floriferous plant I would pick out 'Kumasaka' and 'Babe Harrison', the latter being a relatively undistinguished flower but whenever I saw it growing the bush was smothered in bloom. Here again, in this country although certainly not in America, 'Donation' takes a tremendous amount of beating, as do many of the hybrids, both × *williamsii* and others—'Inspiration' for instance is a pillar of blossom, satisfactory out of doors and under glass (more so under glass than is 'Donation', I think).

'Donation' stands out also for blooming consistently from the smallest of plants, and shares pride of place with 'Sylva' for blooming as a rooted cutting and continuing to do so every year thereafter. It is unfortunate that many people who have not grown camellias before, purchase a plant of one which they have admired and lose heart when it fails to bloom for five or six years! If these people had only tried 'Sylva' or 'Donation' first they might well have become camellia enthusiasts, for no-one wants to wait that number of years before getting a bloom, however attractive the foliage.

For sheer quantity of bloom it would be difficult to beat some of the trees in Portugal, camellia trees with trunks 9 inches or so in diameter. Most of these are growing in cottage gardens and their names are unknown.

When the Portuguese do have named varieties, they are certainly quite a mouthful, but such varieties as 'Dona Herzilia de Freitas Magalhaes' and 'Augusto Leal Gouveia Pinto' are well worth trying, the former for its large paeony-shaped blooms and the latter a formal double, a sport of 'Mathotiana', with a pale edge to each petal (Pl. 9): both have a tendency to blue; this blueing tendency is shared by 'Princess Lavender', a beautiful semi-double in the United States, and by 'Mrs. Charles Cobb', a paeony form of medium size. Most Americans object to this colour change, but personally, being fond of those species roses with an exactly similar colour tendency, I find it very pleasing.

Some of the mathotianas growing in Portugal were so magnificent that one could have felt one was looking at a show begonia on a Blackmore and Langdon stand. While considering cultivars which might be taken for other plants I should like to draw attention to 'Katherine Maryott' (Pl. 10). This is a rose-form pink, which not only looks like a rose, but a really first-class rose at that. Others which may have a real rose appearance are 'Anna Bruneau' and 'Leila Jackson'.

Again, 'Tiny Princess' could almost be taken for a weeping begonia with its small double-pink flowers cascading along the weeping branches. The leaves are correspondingly small, making the whole plant seem in proportion; it is a hybrid resulting from a *japonica* 'Akebono'-*fraterna* cross (Fig. 13).

It would be easy to make this article into a camellia catalogue as there are so many cultivars which I find outstanding, but I will discipline myself to mention only a few favourites in each category.

Among the singles I believe that the recently brought out red

Photos: James Smart

Fig. 13 (*left*)—Camellia 'Tiny Princess', a hybrid of *C. fraterna* raised in the U.S.A. (see p. 64).

Fig. 14 (*right*)—*Camellia japonica* 'Betty Sheffield Supreme', perhaps the finest sport of this American-raised cultivar (see p. 65).

'Grand Prix', may well turn out to be exceptional, but it has not yet stood the test of time; not so with my choice of semi-doubles which are two well-tried favourites with wonderful flowers and thoroughly good doers; 'Adolphe Audusson', which came out in 1877, and 'Guilio Nuccio' in 1956.

Amongst the anemone forms, I find 'R. L. Wheeler' a really reliable large pink, which presents itself well on the bush, is floriferous and thrives out of doors in this country. 'Grand Slam' stands out in any camellia collection, showing up from all others from the distance with its vibrant red colour. In America it may be semi-double or anemone form. The descendants of 'Elegans' provide some very fine anemone-centred camellias. The white 'Snow Chan', pastel pink 'Barbara Woodroof', deeper pink 'C. M. Wilson' and its fimbriated sport, 'Hawaii', and the serrated edged 'Elegans Supreme'. This is a very fine flower of recent introduction. Few flowers are entitled to the suffix "Supreme" but I think that this and 'Betty Sheffield Supreme' really do qualify: a well-grown plant of the latter with its loose paeony flower, white with a deep pink narrow border to each petal, is supreme indeed. (Fig. 14).

There are only a few fimbriated varieties, but two of these are outstandingly beautiful. 'Hawaii' I found disappointing in the States because its colour is too washy and its fimbriation too indefinite. Fimbriation is said to depend on the temperature and in this country this is much more pronounced and the colour

deeper with 'Hawaii'. In fact with the depth of the bloom, which increases the colour effect, this is about my favourite camellia as a single-cut flower, although I must admit that then it can easily be mistaken for a carnation!

'Lady Kay', a variegated, fimbriated paeony-form sport of 'Ville de Nantes', is a wonderful flower as it is grown in the States but, as Ville is a far inferior flower in England to the same thing in America, perhaps the same thing will apply to 'Lady Kay'; it would be well worth trying it under glass here however.

Variegated flowers have a great following in the States, but personally I do not care for them with irregular blotches of white on a red ground, which gives the effect of a "bloody swab".

However, when they have a regular symmetry of colouring and particularly when they have a moiréed effect they can be quite beautiful and very cheerful. Here I would pick out 'Mercury Var.' and 'June Stewart Supreme'.

Among the white camellias 'Angel', alias 'Candlelight', a semi-double with fluted petals similar to 'Guilio Nuccio', is a delightful flower. 'Snow Chan' I have mentioned already under the Anemone forms. 'White Nun' is a huge flower with tremendous substance to the petal. I find it an untidy grower, but the bloom is well named indeed.

Contrasting with the whites there are the very black-red blooms of 'Kuro-Tsubaki' and 'Maroon and Gold'. These have a great fascination and the colour and sheen of a "black" tulip.

Another small one that I would not be without is *maliflora*, a species with small rounded leaves and double pink flowers only 1½ inches in diameter all along the stem.

Among the apple blossom colours (the Americans call this colour "Sweet Pea"), I think the simplicity of the semi-double 'Dr. Tinsley' very difficult to beat, but it is also hard to resist the claims of 'Annette Gehry', 'Amabell Lansdell', 'China Doll', 'Erin Farmer', and 'Ballet Dancer'. My final choice out of these must depend upon which thrives best in the conditions here. For the formal doubles, 'Sawada's Dream' and 'Commander Mulroy' (Fig. 15) stake an equal claim in this colour range.

There is a multitude of good pinks, but I must mention both 'Tiffany' and 'Tomorrow Park Hill', both loose paeony-form, until such time as one or the other proves superior under our conditions. 'King's Ransom' is a medium sized rather flat bloom: it does very well here and is a beautiful thing for a dinner table decoration. 'Can-Can' from Australia and 'Spring Sonnet' from America are

semi-doubles with pale pink petals with a deeper pink edge and they are both enchanting. 'Hana-Fuki' is a pale pink with a form which is well described by its alternative name of 'Chalice'. I must also mention 'Pink Diddy' and 'Diddy Pink Organdie', both sports of 'Diddy Mealing'. The form is unlike any other variety that I have seen and is described as rose form to formal double. It is a rather flattish bloom with the outer petals frilly and the centre raised as a short, tight swirl of petals. 'Pink Diddy' (Fig. 16) is a good clear pink, darker in its depths whilst 'Diddy Pink Organdie' has a pale edge to the petal like 'Tomorrow's Dawn'.

It might be wondered why I have left out the popular 'Drama Girl'. I do so because of its sheer size—with flowers like soup plates, with leaves of corresponding size and therefore rather inclined to hang, it is magnificent, certainly, but I think it carries things almost too far!

'Tomorrow', 'Mathotiana Supreme', 'Extravaganza' and so many of this type I have left out because I do not like the form of flower where the stamens are split into a number of groups like a lot of fireworks going off in a drawing room. This is personal prejudice and many people admire them very much.

Coming to the hybrids: these are increasing in variety, beauty, and in interest all the time and there are many wonderful ones to choose from. I think 'Elsie Jury', a pink anemone form and a good grower, one of the Les Jury hybrids from New Zealand, 'Leonard Messel' from this country, and the enormous frilly semi-double 'Francie L' from the United States, would be my first choice followed closely by the formal double 'E. G. Waterhouse', with no trace of blue in its pink colour, this from Australia, and 'Anticipation', with striking colour from New Zealand. Also

Photos: James Smart

Fig. 15 (*left*)—*Camellia japonica* 'Commander Mulroy', a formal double raised in the U.S.A. (see p. 66).

Fig. 16 (*right*)—*Camellia japonica* 'Pink Diddy', which is unlike many other camellias in form (see p. 67).

'Mildred Veitch' from England with paeony form, soft pink blooms with the one disadvantage that, unlike most × *williamsii*, it does not self-groom, and 'Julia Hamiter' with similar colouring but more anemone formed.

The reticulatas stand apart for sheer opulence of bloom, but I believe that in time to come they will be supplanted by their own progeny amongst the hybrids. These are showing signs of superimposing a more compact habit, increased number of leaves and a lack of virus infection upon the *reticulata*-quality bloom.

In New Zealand I believe the reticulatas are magnificent, but one has to bear in mind that: (1) they are basically trees and not shrubs, and (2) they are more tender than the japonicas. These two factors taken in conjunction mean that there are few people in this country who have the facilities to grow them properly.

Thirdly the Yunnan reticulatas have unfortunately got a high proportion of virus infection; it is not certain whether this came out from China with the original plants or whether it was from the original stock plants onto which they were grafted.

My favourite reticulatas include 'Captain Rawes', the well-established camellia which has a very beautiful flower of simple elegance. 'Buddha' has rather drooping foliage with me, but this may be because the stock on to which my plant was grafted evidently did not have the vigour of a *reticulata* so that the trunk above the graft is considerably larger than below it. If I can get some good *reticulata* stock going I propose to regraft it onto this. However, the plant blooms extremely well and with its large wavy blooms it is outstanding in the greenhouse. Among the Yunnan reticulatas 'Crimson Robe' and 'Purple Gown' are magnificent but I think I prefer the deep colour and character of 'Lion Head', magnificent in the tall greenhouse at the Savill Garden. 'Mouchang'—a cross between 'Moutancha' and 'Chang's Temple'—is a comparative newcomer; a huge bloom which has been winning the prizes in the American Camellia shows. Another newcomer which appeals to me the most is 'Lila Naff'. This is a large silver pink, semi-double with a central boss of yellow stamens —a very nice clear-cut bloom. I am told that it has the disadvantage of not holding too well, but I am not sure whether this means only that it is difficult to exhibit, or whether it does not last long on the plant. (Pl. 11).

To conclude I would mention the simple perfection of symmetry of one of the really old varieties which I photographed in Portugal, 'Reine des Fleurs'. These formal imbricated doubles were beloved

of the Victorians, and I cannot find it in me to blame them. But compared to then what variations in form, colour and potential we now have.

Photo: James Smart

Fig. 17—*Camellia japonica* 'Reine des Fleurs', an old Belgian variety photographed in Portugal (see p. 68).

MORE COMMENT ON CAMELLIA RETICULATA

By COLONEL T. DURRANT, D.S.O., M.B.E., T.D.

TO complete the study of the identities of the cultivars of *Camellia reticulata*, which we published in 1967 in the form of the Ralph Peer Memorial Address under the title, "Some Comment on *C. reticulata*", two things remained to be done. The first, to go to Kunming and study the original plants on the spot. The second, to go to California and check over the principal and original collections of *C. reticulata* which are in the Huntington Gardens and the Descanso Gardens, both in the Los Angeles area.

Since travelling to Kunming did not seem possible in the present state of international relationships (though we hope one day to be able to do so), my wife and I decided to accept the very kind invitation we had from friends in California and to arrange our journey so that we could see the reticulatas in flower and then fly on to Britain and Italy in time to see them in bloom there.

On the last day of February, 1969, we flew from Auckland to Los Angeles where we commenced an intensive programme of fourteen days' concentrated camellia activity, very kindly arranged and organised for us by our friends, Harold Dryden and Bill Goertz, both overseas members of the New Zealand Camellia Society and both well known in New Zealand. We visited many gardens, judged at three large camellia shows, and met numerous camellia personalities, from all of whom we received much kindness and assistance. It is intended to describe many of the gardens in detail in illustrated articles to be published subsequently but, for the sake of easy reference, to record here a summary of observations of *Camellia reticulata* as we saw it in California and in Europe.

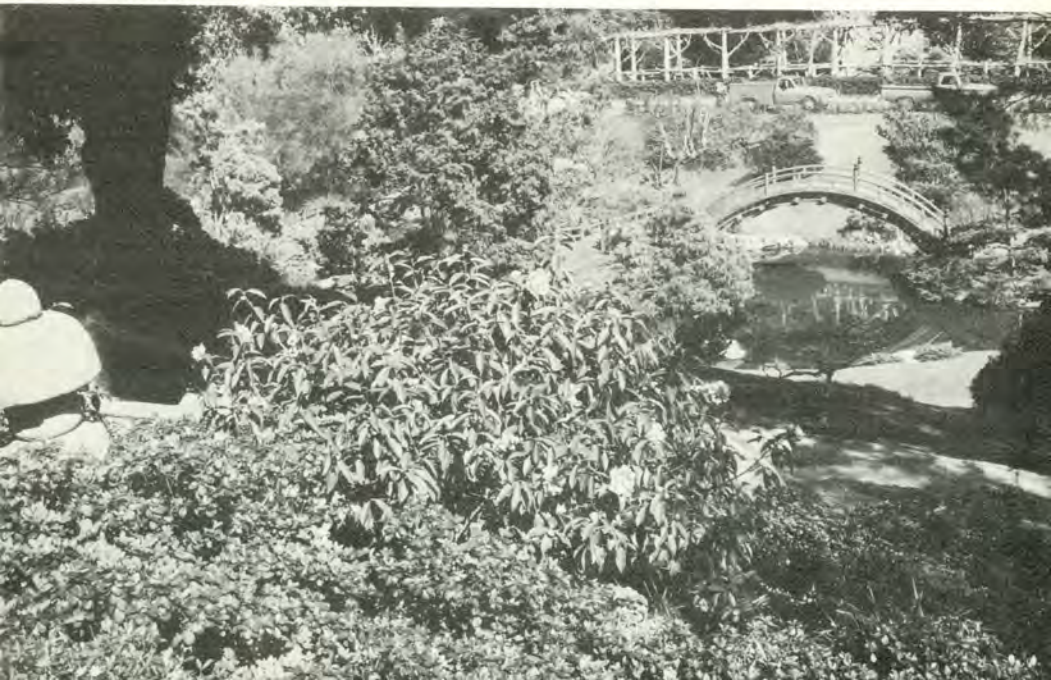
Judging the reticulata classes at the Descanso Show and at Bakersfield and Fresno, provided an overall impression of flowers grown under Californian conditions. There were some very beautiful individual flowers everywhere, but the general quality, size and colour seemed to improve as we travelled northwards. In the Los Angeles area the colour of 'Purple Gown', 'Crimson Robe', 'Tali Queen' and 'Pagoda' had lost some of the depth which in New

Zealand is characteristic of these varieties. We had the general impression that *C. reticulata* does not particularly like container cultivation and, where suitable conditions can be found or created, plants growing in the ground do much better and produce higher quality flowers.

Descanso Gardens has an extensive planting of mature reticulatas grown under live oaks in comparatively heavy shade. Most of the plants were flowering well, but growth was generally open and straggly and the blooms smaller than usual. New planting in full light had suffered somewhat from a flash flood which had scoured through the area and removed some topsoil and all the mulches. Till they are large enough to shade their own roots, good mulches are essential to keep down soil temperatures. The dry, macerated fir bark, which is commonly used in the States, seems an ideal material and its use on the open light planting at Descanso would greatly improve the conditions for the reticulatas there. Mark Antony, the Superintendent of Descanso Gardens, needed some courage to attempt an open light planting under the fierce Californian sunlight. The plants are already bushing up well and we have no doubt that the attempt will be successful.

At Huntington there are numerous reticulatas at various places in the gardens, but the principal planting, which is also the largest

Photo: Col. T. Durrant
Fig. 18—*Camellia reticulata* 'Buddha' in full sun in the Huntington Gardens, California.



and most mature, is in fairly dense shade, again under live oaks and various other trees. These plants are the first propagations from the original shipments and many are very large though they have extremely open growth habit. They were a very beautiful sight in full flower in spring sunshine and well worth the long journey to see them.

Bill Wylam, who must be one of the world's leading camellia experts, gave us a great deal of assistance and it was possible to make a careful plant-by-plant check of this very important collection. It was interesting to see that a start had been made to thin out the overhead cover, an operation requiring great skill and care if the reticulatas were to survive undamaged.

Details of individual cultivars are given in tabulated form later in this article, but one or two items of considerable interest were noted in this famous garden, which has a camellia collection that must be unequalled in the world for number and degree of maturity. There are some fine plants of 'Captain Rawes', one of them 20 feet high, 15 feet across with many weeping branches and hundreds of fine flowers. We saw a sizable plant of this variety, which was ten years old and growing on its own roots. There were two plants said to be actual seedlings of 'Captain Rawes', one raised in 1958 and the other in 1961. Both were small and not very thrifty-looking, in spite of their ages being eleven and eight years, respectively. Both have flowered but the blooms are small and not nearly as good as the parent. The plant on its own roots and the seedlings are very considerable horticultural rarities, since 'Captain Rawes' is normally sterile and cuttings which root and grow away are almost unheard of. The large reticulata plants here were not suffering from the "bottleneck" effect, the result of inadequate japonica stocks, which we saw almost everywhere else. Large stocks in the open ground had apparently been used for these plants.

In the Sunset Garden at Menlo Park, near San Francisco, home of the famous Sunset gardening books, there are some plants of *C. reticulata* which, growing almost in the open, are well furnished, pyramidal in habit and flowering nicely. These are 'Shot Silk', 'Buddha', and 'Confucius', probably the most flourishing that we saw in California. It was interesting to note that 'Cornelian' and 'Crimson Robe', growing only a few yards away but in the shade, were not doing nearly so well.

Plants of *C. reticulata* growing in Dave Feather's garden, on the other side of San Francisco, were also flourishing and it seems

likely that they may prefer the cooler and moister climate of Northern California.

When we flew on a transpolar flight from San Francisco to London we found England enduring the latest and coldest spring for about 30 years and, after New Zealand high summer and California sunshine, the dark, cold and overcast weather had an even more depressing effect on us than it seemed to be having on the local camellias!

In Britain we had a very crowded programme of family and business engagements and it was not possible to visit many places we wanted to see. The continued cold weather had held back growth and flowering of even the earliest spring plants, and almost the only camellias we saw in flower were at the R.H.S. Spring Show or in glasshouses.

Leonardslee is a famous garden in Sussex, about which we hope to write a great deal more later. Sir Giles and Lady Loder very kindly entertained us and gave a lot of time to show us the very extensive plantings they have of camellias and countless other species. The most exciting feature of their reticulata collection is a plant of 'Sungtzelin' (syn., 'Robert Fortune', 'Pagoda'), which is a survival of the introduction made by Robert Fortune in 1850. It is growing in the open on the sunny side of a stone wall where it was planted, apparently, at the beginning of this century. It now consists of about 8 or 10 feet of thin vertical trunk, at the top of which is a small head of branches showing the characteristic foliage, buds and habit of the variety. How this magnificent variety of *C. reticulata*, which was greeted with such enthusiasm when introduced in the mid-nineteenth century, came almost to the point where it disappeared completely, is a horticultural mystery very hard to explain. Another remarkable plant growing against and trained upon a wall, was a 'Captain Rawes' which was all of 40ft across. Being in the open, neither of these reticulatas was yet in flower. In a glasshouse were good flowering plants of 'Cornelian', 'Crimson Robe', and 'Willow Wand' and though glasshouse culture produces very open growth, the weather protection results in beautiful, undamaged flowers. The glasshouses are unheated and fans are used to keep the air moving. The glass is shaded in hot weather by spraying it with a mixture of ordinary white cooking flour and water—very simple, very easy to apply and to remove.

The Royal collection of *C. reticulata* in the Savill Gardens at Windsor is grown in a large cool glasshouse and, when we arrived there on March 20, the plants were in full flower. Sir Eric Savill

had kindly invited us to see them and discuss the identities of some of the plants which, since they originated in the U.S.A. from the Peer-Lammerts shipments, could be expected to display similar confusion.

Unfortunately, it was a dull, dark day when we arrived at Windsor, as it had been at Leonardslee, and it was not possible to take any photographs in colour or black and white at either place. Glasshouse cultivation has again resulted in extremely open growth and some loss of intensity of colour but all these great plants, simultaneously in full display, were quite breathtaking. My wife and I are, of course, prejudiced in favour of *C. reticulata*, but we thought this was the most exciting and beautiful experience in all our long journey through camellia gardens in many countries.

A very nice identity problem was posed by the first plant we met inside the glasshouse. On the authority of Dr. Yu (Yunnan Shancha, Peking 1958) 'Cornelian' is a variegated form of 'Lion Head' and almost all of the plants of this variety in the Western world carry very heavy variegation, the blooms frequently showing 50 per cent or more of white. Here, at Windsor, was a plant showing both variegated and solid coloured flowers simultaneously. It was also interesting to note that the degree of variegation was much less than normal. There seems to be no doubt that the usual variegation in 'Cornelian' is virus induced and the strain of virus concerned affects the flowers in a very marked manner. In Huntington Gardens we saw a plant similar to the one at Windsor—it also showing many solid flowers and some with limited variegation. It is pure speculation on our part but it seems likely that both these plants originate from a 'Lion Head' from Kunming and that their limited degrees of variegation may result from another strain of virus, picked up from infected grafting stock, either in China or in the U.S.A.

Obviously, giving variegated forms of a cultivar totally different names leads to considerable confusion, particularly when the degree of virus-induced variegation can vary greatly from plant to plant and may even disappear altogether. It seems reasonable that the two plants we are discussing should retain their 'Lion Head' labels, but that only solid red flowers should be exhibited under that name.

Another striking plant, a 15 feet high 'Willow Wand,' was making a great display with many soft pink flowers. This fine variety is involved in confusion with two others, 'Osmanthus Leaf' and 'Takieyeh', and in Great Britain has been given an

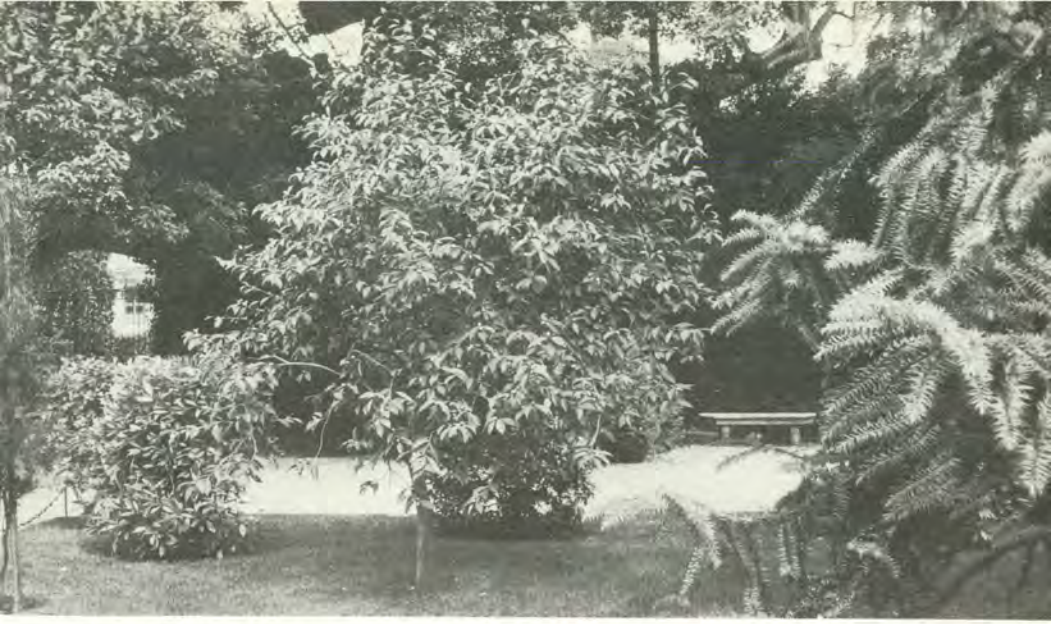


Photo: Col. T. Durrant
Fig. 19—*Camellia reticulata* 'Captain Rawes' in full sun in the garden on Isola Bella in N. Italy (see p. 76).

Award of Merit as 'Osmanthus Leaf'. The true 'Osmanthus Leaf' ('Hsiaokueyeh') does not appear to have reached Great Britain. It is a quite different, distinct variety and, when seen together, there is no possibility of confusion between it and 'Willow Wand'.

'Shot Silk' was showing its characteristic, vertical habit and will soon reach the roof. It, too, was making a brilliant display.

'Crimson Robe' (which had been here confused with 'Noble Pearl'), 'Butterfly Wings', 'Pagoda' and 'Professor Tsai' were all contributing to the great display of colour. 'Buddha', about 12 feet high, was suffering from the defoliation which seems to affect this variety unless conditions are exactly as it likes them. The "bottle-neck" effect, caused by inadequate japonica understock, which we have in our own garden on similar plants and which we noticed in many places in the U.S.A., was also showing on some of the fine plants in the Windsor glasshouse.

The camellia species, *tsaii*, *rosaeflora*, *maliflora* and *drupifera*, were flourishing here and a most notable feature was a tall columnar plant of the hybrid 'Inspiration', reaching right to the roof and a mass of clear pink colour.

No amount of verbal description can convey an adequate impression of the beauty of this display or of the skill and patient care which have produced it.

We are deeply grateful to Sir Eric Savill who made the visit

possible and entertained us most kindly. Also, to Mr T. Findlay and Mr J. Bond, who not only gave us every assistance but are obviously greatly devoted to the work they are doing at Windsor.

As we left London Airport on March 28 for Italy, the sun was shining for the first time since we had been in England.

At Milan Airport we were met by Dr. Antonio Sevesi, who is president of the Italian Camellia Society, and with whom we have carried on correspondence about camellias for many years. He was our most generous and charming host during our stay which he organised in every detail. We saw many exciting things in Italy which we hope to record later, but this article is concerned with *C. reticulata*, which is not yet grown extensively in that country.

In the famous garden of Isola Bella, belonging to the Borromeo family, there is an exceptionally fine plant of *C. reticulata* 'Captain Rawes'. This has a circumference of 36 inches at 10 inches above ground, has a tall, straight trunk and a fine head of well-furnished branches. It is in full light and grafted on *C. japonica* but shows no signs of the "bottleneck" effect. *C. reticulata* is recorded in the 1906 edition of the plant catalogue of this garden and the entry could well refer to the plant in question. If so, it is already sixty-three years old (Fig. 19).

In Signor Piero Hillebrand's very efficient nursery at Pallanza there are several series of fine seedling reticulatas, raised from seed sent by us from New Zealand. A few of the Kunming varieties have been recently imported and, when the appropriate grafting techniques have been mastered, their eventful wide distribution in Italy should be assured. If 'Captain Rawes' flourishes there is no reason why the other varieties should not be successful.

In the United States, New Zealand and Australia, *C. reticulata* is now being extensively used in the breeding of many new hybrids with *C. japonica*, *C. saluenensis* and other species. A number of outstanding forms have already been produced and there is no doubt that *C. reticulata* will be an important component in the inheritance of many garden camellias of the future.

Below are listed the various cultivars of *C. reticulata*, giving the transliterated Chinese names first and the common trade names second. The reference numbers are the same as those used in the Peer Memorial Address, published New Zealand Camellia Bulletin, Vol. V, No. 4, dated November 1967, and subsequently in other camellia publications in Britain, Australia and U.S.A.

For the sake of clarity, all the cultivars are listed, even when no further comment is necessary.

1. TSUEBAN (Chrysanthemum Petal)

This identity has never been in doubt though it appears to be very little grown. The few plants we saw were unthrifty and no blooms of it were exhibited. When successful it is a most beautiful and attractive small flower borne in profusion on a plant of tree habit. We obtained what seems to be a virus-free form of this in our 1964 shipment and it is hoped that more successful propagation will be possible from this.

2. SUNGTZELIN (Robert Fortune, Pagoda)

There seems to be no doubt that Robert Fortune's 1850 introduction is identical with the plants introduced in the Peer-Lamerts shipments as 'Sungtzelin' or 'Pagoda'.

3. TZEPAO (Purple Gown)

This very beautiful camellia is grown frequently but great difficulty with propagation by cleft grafting methods is reported in many places. It is recommended that this cultivar should be grafted on *C. reticulata* seedling stock, with which a high percentage of success has been obtained. The very deep colour seems to be greatly reduced in intensity when grown in glasshouses or in containers.

4. TAYINHUNG (Shot Silk)

This variety shows its tree-like habit wherever and however it is grown. We saw very good plants of it in U.S.A. and Britain and it presents no identity problems.

5. TATAOHUNG (Crimson Robe)

This, apparently, arrived in Great Britain under label, 'Noble Pearl'. It was awarded an F.C.C. under that name but this has since been corrected. It is widely grown and, apart from the instance quoted, presents no identity problem.

6. HOYEHTIECHIH (Butterfly Wings)

7. MOUTANCHA (Moutancha)

Some very good flowers of this were seen on the show bench in California. It is regarded as very difficult to propagate and seedlings of *C. reticulata* are recommended as understock.

8. BUDDHA (Buddha)

We saw many instances where this variety had proved difficult to establish and extensive defoliation had occurred. When successful it produced fine flowers, many of which we saw on the show bench.

9. CONFUCIUS (Confucius)

No really good flowers of this variety were seen either in gardens or on the show bench. As with No. 8, 'Buddha', in California it seemed to improve as we moved northwards.

10. TIEHTSE-MAOTAN (Professor Tsai)

11. SHITZETOU (Lion Head)

This, as previously stated, is a solid red peony form camellia. In Huntington Gardens and at Windsor we saw plants with a high proportion of solid red flowers but with some degree of variegation on others. In neither case was the variegation more than the odd fleck or two of white and it would seem that this could have been induced by grafting on virus-infected understock. If so, it is obviously a different strain of virus from that which induces the extensive variegation in 'Cornelian'.

12. TAMARNAO (Cornelian)

We saw a large number of plants of this variety, both in California and Britain, still carrying labels as 'Lion Head' or, more usually, as 'Chang's Temple'. All the flowers were displaying very heavy variegation, can be easily recognised as 'Cornelian' and further confusion should not arise.

13. CHANGCHATIECHIH (Chang's Temple)

We imported the correct 'Chang's Temple' from Kunming in 1964 but found no trace of this cultivar in any of the collections inspected. All the plants carrying this label were undoubtedly 'Cornelian'. All the fresh evidence we have supports the separation of Nos. 11, 12 and 13 as set out in the Peer Memorial Lecture.

14. HSIAOKUYEH (Osmanthus Leaf)

A plant of this variety was found in the Huntington collection, matching exactly the one we imported in 1964. It was carrying the correct label and it is curious that the picture on page 358 of Vol. II, *Camellias in Huntington Gardens*, Hertrich, W., does not illustrate this camellia. Apart from one other plant in a private garden, all the plants we saw under this label were 'Willow Wand'. One can only speculate as to why the confusion arose, when the correct variety was available.

15. TAKIEYEH (Takieyeh)

No plant of this cultivar was seen and it seems most probable that it did not reach the U.S.A. or did not survive.

16. LIUYEHINHUNG (Willow Wand)

This cultivar was found widely distributed, frequently under

label 'Osmanthus Leaf'. Under this name it was given an Award of Merit by the Royal Horticultural Society.

17. TALICHA (Tali Queen)

This is also widely distributed but frequently carries the label 'Noble Pearl'. It is easily recognisable. (See Note 18 below).

18. PAOCHUCHA (Noble Pearl)

We inspected a large number of plants carrying this label and they were, with one exception, 'Tali Queen'. In Britain a plant of 'Crimson Robe' was awarded an F.C.C. under label 'Noble Pearl', but this has since been corrected. We could find no trace of any plant resembling the Chinese description and illustration of 'Noble Pearl' and it can be assumed that it is not in circulation outside China.

19. TAOTAOHUNG (Early Crimson)

We imported this in 1964 as a previously unknown variety.

20. MAYEHYINHUNG (Reticulate Leaf, Spinel Pink)

In Huntington Gardens we found a large plant labelled 'Shot Silk' reticulate. The translated name for 'Shot Silk' is 'Large Spinel Pink'. The Huntington plant is obviously not 'Shot Silk', which was growing nearby for detailed comparison, but it is probably 'Mayehyinhung'. We are arranging to import a plant from Huntington to compare with the ones imported from Kunming under this label. No mention of this plant occurs in W. Hertrich's description of the Huntington reticulatas.

21. HENTIENKO (Dwarf Rose or The Dwarf)

We found no trace of this variety in either U.S.A. or Britain. The plants at Tirau, referred to in the Peer Memorial Address, have produced some remarkable variations of flower form. So much variation in fact, that their identity is impossible to establish for the time being.

22. EARLY PEONY

No trace of this cultivar was found. Imported from Kunming in 1964 it is establishing well in New Zealand and remains virus-free.

In the course of this travelling survey of *C. reticulata*, we carefully checked the basic collections at Huntington and Descanso, saw many private collections and nursery stock plants, and hundreds of flowers. All the evidence we found confirms the identity studies we published earlier. If any reader has any information which might lead to the discovery of any of the still missing varieties, please write to the author at Mayhills Farm, Tirau, New Zealand.

During this long journey around the world we made many new friends and received the most remarkable kindness and hospitality wherever we went. Special mention must be made of the people who helped plan our trip, organised our visits, took us to their homes, provided us with transport and did everything possible to enable us to see what we wanted to see. In California, Harold and Elsie Dryden, Bill and Ruth Goertz, Milo and Agnes Rowell, George and Louise Pfeiffer and Dave and Lauretta Feathers. In Britain, Sir Giles and Lady Loder, Sir Eric Savill, and Lt. Comdr. and Mrs F. D. Judd, and in Italy, Dr. Antonio Sevesi. For all this generosity and friendship, we are very deeply grateful.

CONCURSO—EXPOSICION INTERNACIONAL DE LA CAMELLIA. VIGO, 1969

By LESLIE RIGGALL

HAVING toured the best American camellia shows, and seen others of Europe, Japan, Australia and New Zealand, I thought I had seen everything in this field. How mistaken I was, for none of these can be compared for colour and excitement with the Camellia Show held from the 22nd to the 24th of February, 1969, at Vigo in northern Spain. Although it was a show held in one building, it had much of the atmosphere of the flower festivals which are held in some parts of the world as tourist attractions. Coverage by the Spanish Press was very heavy, with pages of pictures and articles.

It was held in a large, new, covered sports stadium, the largest building I have seen used for a camellia show. Unlike most of such stadia, with their hideous girders and depressing functional appearance, this building is beautiful, and made an appropriate setting for the show.

The oval stadium was divided lengthwise and the whole of one half of the spectator area had been banked right up to the roof with an amazing quantity of moss, in which were set well-spaced groups of conifers, camellias and agaves. This made a wonderful background for the large stage erected in the middle, with tiers at the back for the choir, numbering about sixty singers.

The ladies wore cream coloured robes, relieved with a corsage of one beautiful camellia, and the male singers in ranks behind them were also smartly attired. They sang traditional songs and a moving religious prayer. There was also at one end of the stadium a large band of about sixty musicians.

The surrounds and various wings of the stage were beautifully clothed with conifer foliage, decorated with contrasting flowering branches of magnolia, the only other flower used in the decorative scheme. And waiting here for their cues were more performers, of the folk dances and folk music of Galicia. The instruments played by this troupe were Spanish bagpipes, drums and tambourines, and in their first group of dances they danced in bare feet (just as the peasants work in the fields in the summer) and simple but colourful working clothes. Later, in a rousing finale to the whole show, they re-appeared in richly textured costumes, and gave a performance of such colour and verve that they "brought the house down", for the other half of the stadium was packed with spectators.

There were about forty prizes, to be retained permanently. Apart from the grand prix and one large crystal vase, they were all beautifully fashioned pieces of silverware in many artistic designs, created by Spanish silversmiths specially for the show. They were presented by aristocrats, Cabinet ministers, and so forth, and the premier trophy, the Gold Camellia, was given by Her Excellency Carmen Polo de Franco (wife of Generalissimo Franco). The system was to award the Gold Camellia to the most successful exhibitor, and then the various trophies which he had won were given to the runners-up in those classes. This is an excellent idea, as it prevents one exhibitor from walking away with too many prizes.

On the carpeted floor of the stadium were arranged long banked tables for the camellia blooms and floral arrangements, and on the perimeter, potted plants set in more moss. Here too were old garden ornaments and antique fountains playing. Flags of the Spanish provinces which sent flowers were flying, and of Portugal, which had sent many flowers.

The whole show was televised and relayed throughout Spain. Prize-winners were filmed against a background of their own winning exhibits, a characteristic artistic touch. Spanish ladies tend to wear black on formal occasions, but there was a variety of colourful uniforms amongst the men.

A large percentage of the flowers were of Portuguese varieties,

but of course there were many old varieties of Japanese or Chinese origin such as *Camellia japonica* 'Hagoromo' (in Europe incorrectly known as 'Magnoliaeflora') and *C. reticulata* 'Captain Rawes' and 'Robert Fortune'. Reticulatas make spectacular trees in this warm climate.

Perhaps I should explain here that camellias are not grown for show purposes in Portugal and Spain. They are not protected in any way and are most often grown in full exposure to sun, wind and rain. Blooms produced in such conditions are seldom perfect when closely examined. Just before the show there had been lashing wind and rain, and perfect show quality blooms were probably to be found only in the sheltered centre of larger bushes. By a coincidence the same misfortune had befallen the last show I had visited, in Wellington, New Zealand, and in that country also blooms are not cosseted. I had the honour to act as a judge there, and the judges did exercise leniency in respect of slightly damaged blossoms. I feel that this is much better than the system of specially protecting and treating blooms as practiced in America. The public see the sort of flowers they are likely to obtain in their own garden, if the show inspires them to take up the culture of camellias.

The most noticeable flowers were Mr. Alfredo Moreira da Silva's groups of blooms of the "Blue" camellia, *C. japonica* 'Dona Herzilia de Freitas Magalhaes'. Mr. Moreira da Silva showed the "Blue" camellia and another group of "Blue" with white variegation. The blue colour in this Portuguese camellia is very variable, depending on various factors, but on this occasion these two groups were a startling contrast with all the other camellias, quite striking even from the other side of the stadium.

After the dancers, now supported by the choir, had brought the show to a highly emotional climax, the spectators surged down to the arena from the stands, and the camellias seemed to be swallowed up in a sea of humanity.

As I was the guest of Mr. Moreira da Silva I was naturally pleased when he was awarded the Gold Camellia for his many blooms and large pot plants. The prize was a sprig of camellia, exquisitely wrought in gold and set on a base of dark green marble. Although he is a nurseryman he did not have a display stand. There were no commercial stands and nothing was sold. Perhaps the Spaniards feel that this would not be in keeping with the reverence for the camellia which has a long tradition in northern Spain.

AN ADVENTURE WITH RHODODENDRONS

Part I

By JOHN CLARKE

THIS is rather a personal account of an encounter with rhododendrons which resulted in much fun and at the same time enabled a lot to be learned. Whilst recuperating from an accident, I started to visit famous gardens trying to learn something about plants and shrubs generally. For this part of my life I was away from my office and it was delightful to be able to visit a garden in midweek without any pangs of conscience. It will probably seem strange to those of older generations that one should be able to get excitement from a weekday visit, but as the pressure and pace of life increases so will such escape routes and interests become more important. In my case it so happened that when I started back to work I still managed to escape every Friday to visit a garden by working instead on Saturday mornings, whilst my partners took their leisure.

Very early on I found myself attracted more and more to Nymans. This famous garden previously owned by the Messel family and left to the National Trust by the late Lt. Col. L. C. R. Messel, O.B.E., T.D. and supervised by the Earl and Countess of Rosse for the National Trust and the Royal Horticultural Society, although near to main roads and Gatwick Airport, is a very peaceful place, and in all weathers and at all times of the year has much of interest. To a beginner like myself it was a fantastic place. For some years I had been interested in rhododendrons, chiefly from the point of view of propagation and hybridising, and I could see what a marvellous collection of species there were in that garden although at the time I knew little of their names and history. Gradually I began to look at them more closely to try and work out what they were. Unfortunately many of the plants had lost their labels and I began to realise what a problem such a garden posed to those who had to run it. At one stage one had the whole garden full of seedlings being grown on from the seeds sent back by Forrest, Kingdon Ward and Rock, all of them labelled under

Photos: Ernest Crowson of J. E. Downward

Fig. 20—*Rhododendron ferrugineum* var. *album*, A.M., June 10, 1969. Exhibited by The Crown Estate Commissioners, The Great Park, Windsor (see p. 187).

Fig. 21—*Rhododendron rude* 'Frank Kingdon Ward, A.M., May 19, 1969. Exhibited by Messrs. A. C. and J. F. A. Gibson, Glenarn, Rhu, Dunbartonshire (see p. 190).

number. Then there came the Second World War and the period following, when there were economies necessary in all big gardens. Then suddenly, as it were, some forty-odd years on, one had great plants competing with each other for space. Most of the branches had swelled and broken the wires tying on the zinc labels identifying them. The labels had fallen and been covered by leaves. This implies no criticism because the time does not exist to do everything in a garden and all great gardens obviously pass through a similar phase.

On occasions whilst going round the gardens I had met Mr. Nice the head gardener and sometimes asked him the names of some of the rhododendrons. Surprisingly enough I nearly always got the answer "scyphocalyx". At the time this seemed odd to me and I wondered whether he might be pulling my leg. It was not until considerably later that I realised that his reply was indeed correct and that the garden had a large population of that species under a lot of numbers. When some two years later, in 1967, I was talking to him about the labelling of the plants and as to whether he would like some clerical assistance with the job, he told me that Dr. Fletcher had recently suggested to Lord Rosse that this should be done. The task was a terrific challenge, but more than one man could do on his own, remembering his many responsibilities as Head Gardener. Thus, from this chance conversation and with the encouragement of Lord Rosse the project got off the ground. I hasten to add that it started off as a very amateur attempt as far as I was concerned and I had to learn as we went.

Thus it was that nearly every Friday afternoon Mr. Nice and I started at 1 p.m. to attempt to identify and catalogue this vast rhododendron population. There are obviously lots of gardens in England where originally all the plants were carefully docketed, but where the labels are now missing. The problems which we faced are no doubt the same as theirs and so we hope that what happened in our quest may help others to start off somewhere else.

There were two sets of problems. One was the recording of data in the field and the other was the type of records kept. When we first set out we took the following equipment:

Small trug.
Orange coloured manilla tags.
Chinagraph pencil.
Millboard with foolscap paper and clip.
Polythene bag to hold the millboard in wet weather.

The small trug was invaluable for holding odds and ends, such as the odd polythene bag, knife and hand fork. The latter was not taken with the idea of removing small layers or seedlings, but was invaluable for sifting the rubbish under plants. In some cases Nice knew where there were plants with original labels on them. In other places we had to carry out an exhaustive, and at the same time exhausting search for them. In much the same way as one undertakes an archaeological dig, one must not lose sight of any of the original clues. What happened to us in the "Alpine beds" was a very good illustration of the work as a whole. Some of the plants were by now some 5 feet high. The whole was a very tightly knit mass of *tsangpoense*, *calostrotum*, *saluenense*, *campylogynum* etc., plus for good measure some fairly good brambles. The only way to find any labels was by working on all fours under the plants laboriously sifting all the rubbish which had accumulated. Whenever we were working in this part of the gardens the temperature inevitably had to be in the eighties and the various flies and insects seemed to find us irresistible. Occasionally one could see a ring mark in the bark of the plant where the original wire had held the label. Sometimes just the wire was still hanging there. If one looked through the rubbish directly below one sometimes turned up a label. One label was found 5 inches below ground level still attached to the branch it was originally put on. The finding of a label was a major feat, rather like finding pieces of eight in a wreck. It also gave us the excuse for taking a breather. The zinc labels at first sight were unreadable which was where Nice's next bit of equipment was invaluable. This was a damped piece of sponge and when rubbed on the zinc label made it more or less legible. Having found the number and sometimes the name as well, we entered the details on what we were later to refer to as our day sheets. We prepared a day sheet for each Friday and on it was the number, the name of the plant as given in Part One of the *Rhododendron Handbook* and the area in the garden where it was found. We did not always stay in one area each day. If we had too long without finding a label, which could be depressing, we moved on to another area where Nice had previously spotted one or two labels still hanging from plants. As soon as a label was found we wrote the number on to an orange coloured tag with the chinagraph pencil and tied it on the plant so as to make it easy to find again. At the time, of course, you always think that you will remember where everything was and yet a week later you can find no trace. Hence the importance of the orange tags, later to be followed by

Hartley metal labels as a further, but longer lasting temporary label until the final label was prepared. This also happened to Nice and if during the remainder of the week he came across a label he used to tie a piece of white string on the outer edge of the bush as a signal ready for the following Friday.

When we started our day sheets we used to put the date and the month at the head, but of course, we should have put the year in as well. At the time we did not think it was a matter of years! If we had known that to start with the idea might not have got off the ground at all. When we found a label under a plant we also tied the tag to the plant immediately above even if this might appear obviously to be the wrong plant. It was essential to apply this one rule in order to stop ourselves guessing which of the neighbouring plants it might belong to. With some of the smaller plants they were still only 1 or 2 feet apart and a fallen label might have come from any of five or six plants. A specimen day sheet (extract) reads as follows:

Plants seen on Friday 4th August 1967

KW 5874	*concatenans*—on right before *meddianum* var. *atrokermesinum*	1924/25
KW 6962	*myagrum*—dead	1926
KW 8203	*eclecteum* aff.—far end	1927/28
F 26921	*stewartianum*—far end on top path *euchaites*—lower down	1924/25
KW 6855	*exasperatum*—on top path again	1926
KW 8254	*beanianum*—label on *haematodes*?	1927/28.

It was my job when I got home to type out the sheet and to prepare enough copies for ourselves and the records. The facility of being able to take copies of everything with a Rank Xerox copier proved invaluable. This meant that we could prepare as many copies as we wanted of working lists for different parts of the garden. It did not matter if they got wet in a shower, and if amended on the spot could be recopied, as amended, ready for the next visit.

After that we used to prepare a metal label for the plant, the idea being to substitute it for the tag which we did until we found that we were getting into difficulties over what were described as "wrong numbers". The numbers on the original labels had been beautifully written out by the former head gardener, the late James Comber, in a flowing hand. Occasionally he had been a little too light on the tail of a nine or seven which might look like a nought.

On other occasions he had reversed the order of two figures which we ourselves found only too easy to do when we were calling out figures to each other. Sometimes he had a number which was not in his *Handbook* list and after the number he would write NIB (not in book). One or two of these we could in fact trace from Forrest's lists.

In the autumn of 1967 I happened to meet Alan Hardy who was very enthusiastic about the whole idea and subsequently became a member of the team. This meant that there were now two persons in the team who more or less knew what they were talking about. This was in fact of some importance because if you are going to be looking at rhododendrons for a long time and seldom seeing them in flower, identification from leaf, plant shape and size, becomes of some importance.

With the winter evenings upon us a certain amount of research was carried out on the historical side. I think that this would apply also to any other large garden. As far as I was concerned there wasn't sufficient time to do any research at the Lindley library and it was really a question of studying the books which were to hand. Luckily some short time before I had acquired a complete set of the Rhododendron Society *Notes* and also had a number of the Rhododendron Association *Year Books*. At the same time a friend had kindly given me his Index to the *R.H.S. Journal* and I acquired the supplements. Having gone through these it became apparent that the following awards had been made to rhododendrons (excluding hybrids) from Nymans:

calostrotum	AM	1935
cerasinum	AM	1938 KW 6923—Cherry brandy
concatenans	FCC	1935
edgeworthii	FCC	1933
johnstoneanum	AM	1934
polyandrum	AM	1933 KW 6413
polyandrum	AM	1938
cephalanthum var. *crebreflorum*	AM	1934 KW 6967
virgatum	AM	1928

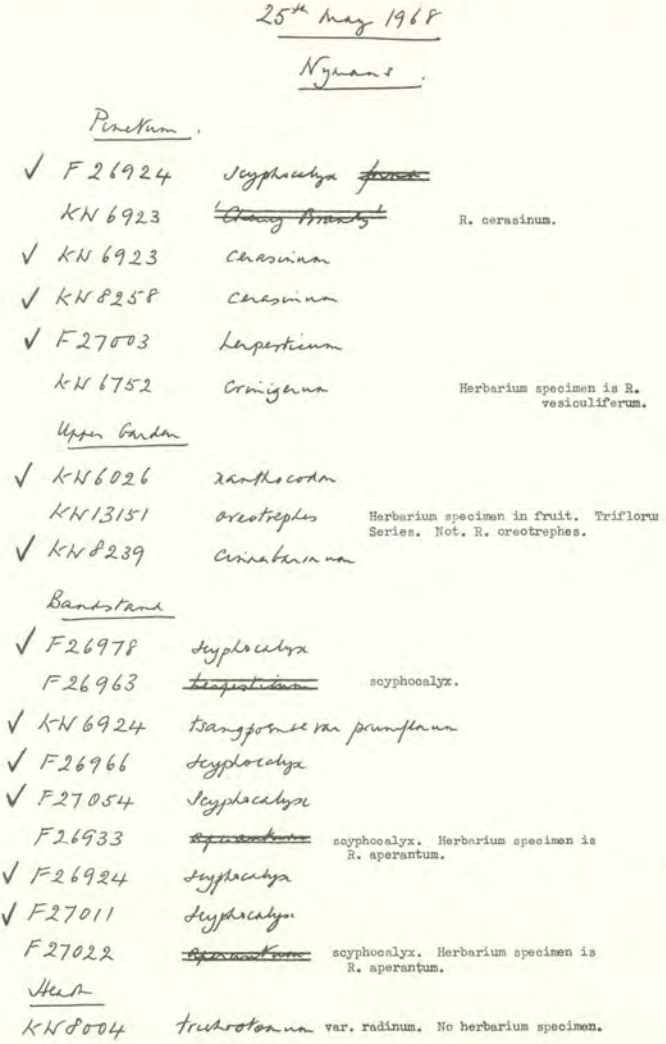
These old sources of information throw up quite a bit of information including occasionally the seed number under which the plant was raised. In some cases this is also true of Part One of the *Rhododendron Handbook*. Information can also be picked up from the lists of prizewinners at Shows and from accounts of lectures

by Kingdon Ward, etc. Another point of interest is that the supplements to the Rhododendron Association *Handbooks* give additional Collectors' numbers over and above those given at present. This applies in particular to the numbers for Forrest's 1924/25 expedition, where in many cases equivalent numbers are quoted. However, we ran across a number of plants under Kingdon Ward numbers in the thirteen thousands which do not appear in the present *Handbook* at all. Much research enabled Hardy to track down complete lists of Collectors' numbers with their attendant notes, including those not in the *Handbook*. Although some of the descriptive notes i.e. size, may be inapplicable to conditions in this country, nevertheless, the other descriptions are very helpful. For example, we were able to differentiate between *kongboense* under KW 6020 and 6021. Hardy got all this literature together, it was all faithfully copied. Hardy now has in his possession one of the fullest series of Collectors' notes. I mention this in case somebody else has queries over numbers. It was at this time that Nice suddenly remembered an old box of Comber's papers which were then brought to light. These consisted of sheets and sheets of seed numbers showing what was in the garden. It was impossible to say when the lists were prepared, but it would appear that they were done somewhere around 1934. This discovery from our point of view was akin to the opening of Tutankhamen's Tomb and we soon realised the importance of the find. We had always realised that a lot of papers had been probably lost at the time of the fire and it had therefore been just that bit more annoying to have no records to help us.

The first task, not unnaturally, was to type out a copy of all the lists, but adding to the seed numbers the description as now shown in Part One of the *Rhododendron Handbook*. This alone took many hours of work and as soon as this was done enough photocopies were done to provide working lists that we could take around with us in the gardens. By then we were deep in the winter which was perhaps lucky as we could not have done the work in the summer evenings. Unluckily in some ways we overestimated the importance of the lists, as many of them gave a sequence of plants which bore no resemblance to the present day whatever. Other lists were very helpful and in certain cases the sequence of plants was still there. Luckily also we had reckoned without Nice's store of knowledge of which plant had been moved from where. These forgotten moves would suddenly come out of the hat and give some wanted confirmation about one plant or

another. Having got so involved with lists it seemed the sensible thing to do to prepare a complete list of Collectors' numbers on which we could mark off the whereabouts of any plants shown on the original lists. On our initial searches for labels we had noticed how nearly all the seed numbers had been those collected in the period 1924/28. Originally we thought that Nymans probably had seed from nearly every expedition between the two Wars. This limited period was confirmed by Comber's lists and in a way this narrowed down our task. The way we made our list of all the plants originally known to be growing was very simple and could help others. Xerox copies were taken of all the appropriate pages

Fig. 22—A sample of a list compiled at Nymans by Mr. John Clarke, Mr. Alan Hardy and Mr. C. G. Nice (see p. 91).



25th May 1968

Nymans.

Pinetum.

✓ F 26924 Scyphocalyx ~~[illegible]~~

KW 6923 ~~[illegible]~~ R. cerasinum.

✓ KW 6923 cerasinum

✓ KW 8258 cerasinum

✓ F 27003 Leptothrium

KW 6752 Crinigerum Herbarium specimen is R. vesiculiferum.

Upper Garden

✓ KW 6026 xanthocodon

KW 13151 oreotrephes Herbarium specimen in fruit. Triflorum Series. Not. R. oreotrephes.

✓ KW 8239 Crinigerum

Bandstand

✓ F 26978 Scyphocalyx

F 26963 ~~[illegible]~~ scyphocalyx.

✓ KW 6924 Sargentianum var. pruniflorum

✓ F 26966 Scyphocalyx

✓ F 27054 Scyphocalyx

F 26933 ~~[illegible]~~ scyphocalyx. Herbarium specimen is R. aperantum.

✓ F 26924 Scyphocalyx

✓ F 27011 Scyphocalyx

F 27022 ~~[illegible]~~ scyphocalyx. Herbarium specimen is R. aperantum.

Hedge

KW 8004 trichrotum var. radinum. No herbarium specimen.

of Collectors' numbers in the *Rhododendron Handbook* and these were cut up into strips and stapled to sheets of foolscap paper placed lying sideways. (Incidentally, always use the same size of paper for all your notes of any kind as it makes them much easier to keep and handle.) Vertical columns were then ruled on to the sheets and allocated to the various parts of the garden as in Comber's notes. Each time his lists gave a number so was a tick put against that number in the appropriate location column. Thus, at one stroke, if anyone mentioned a seed number we could at least confirm whether or not it was growing at Nymans at the time the lists were made and where it was. Of course, many of the names that appeared on the labels were not those in use today. Here the list of synonyms given in the *Rhododendron Handbook* is invaluable i.e. *deleiense* = *tephropeplum;* also *riparium* = *calostrotum.* On the other hand one also really wants a reverse list as well, which I never had the energy to prepare, so that one could find the original names which in some cases are all now telescoped under one name. We made detailed lists of the different Collectors' descriptions where we had several numbers, some known and some unknown. For example, we had *tsangpoense* under six different numbers and wanted to satisfy ourselves that they were correct. There were several pages of lists of "wrong numbers" with suggested "right numbers". We had our own lists of plants by number as they occurred in different parts of one garden. We took Comber's list for the Prospect and deleted what we had found in the hopes of isolating the others. Finally we had to have an Index of Lists!

By then, of course, we were knee deep in paper and really feeling that progress had been made. An enlightening period awaited us! Dr. Fletcher at Edinburgh was told that progress had been made and he asked us to send up specimens from plants in flower which we thought we had identified so that they could be checked by Mr. Davidian and also against the original Herbarium material, where it existed. Thus throughout the flowering seasons of 1968 and 1969 we found ourselves compiling lists for Edinburgh and sending parcels of blooms all carefully labelled with NY serial numbers. Again those orange coloured tags and the chinagraph pencil, one tag on the specimen, another on the actual plant. As each lot was parcelled up, a typewritten list was sent up in duplicate. In return a few days later we got back one sheet covered, as occasionally happened with ticks, but more often than not with a large number of alterations. A sample list shown here gives some indication.

However, after a bit it slowly dawned on us that the Collectors did not necessarily know where the bees had been, that some batches of seed contained, as Edinburgh kept on telling us, some hybrids as well, and also that the *Handbook* was not always necessarily correct. Apparently Lt. Col. Messel always used to say that he thought several of the plants numbered as species were hybrids. Hardy very cleverly and correctly spotted *R. phaedropum* which was under KW 6854 and shown as *euchaites* in the *Handbook*. Here Kingdon Ward's notes say, "the light orange corolla rimmed and streaked with brick-red giving a general effect of tawny orange". Proof that the Collector's notes can help. This checking as can be readily imagined gave us many surprises and many disappointments.

On reflection, however, we all agree that if anyone thinks he has a rhododendron collection under number he had better start checking it with Edinburgh and see what comes back.

Although this project is still going strong, we would like to say how grateful we are to Dr. Fletcher and Mr. Davidian for all their help. Hardy (who is contributing Part II of this article) and myself are greatly indebted to the Countess of Rosse and The National Trust for all the fun that we have had in assisting Nice.

(*To be continued*)

Photo: Ernest Crowson of J. E. Downward
Fig. 23—*Rhododendron lepidostylum*, A.M., June 24, 1969, as a hardy foliage plant. Exhibited by Captain Collingwood Ingram, The Grange, Benenden, Kent (see p. 188).

EXPEDITION TO MALESIA, 1968

By MICHAEL BLACK

ALTHOUGH this expedition to collect live rhododendrons in South-East Asia did not get under way until I reached Kuala Lumpur, it felt as though things were moving shortly after the V.C.10 thundered off from Colombo to climb rapidly over the Cingalese peaks. Interesting facts have emerged in Ceylon regarding *Rhododendron zeylanicum*. Not only was this species first noted on the summit of Adams Peak by a Moorish traveller in 1343–4, but it was the earliest recorded wild plant in Ceylon. On the Patanas above 5,000 feet, it exhibits a remarkable ability to withstand periodic burning, and is often seen as a gnarled stunted plant no more than 5 feet high, flowering profusely. In the forests below it forms substantial 60-foot trees, more in keeping with the mental picture most of us have of this plant in the wild.

In the heavy heat of Kuala Lumpur it seemed unlikely that rhododendrons should be nearby, yet on the quartz ridge at Klang Gates (928 feet) just outside the city *R. longiflorum* and other species thrive. The first locality visited was an approach ridge to Bunga Buah at Ulu Kali (approximately 3,600 feet). A new road was being pushed along the slopes of the jungle below, and we were able to leave the car only a couple of hundred feet below the highest point of the ridge crest. Below the road were several epiphytic plants of *R. jasminiflorum* perhaps 40 feet up on the moss covered branches of a *Shorea* sp. Scrambling along a rough track, the first impression I had was how, in general, the mosses were much drier than in, say, New Guinea, except in well shaded crannies. The first terrestrial rhododendron I came across was a 3 foot plant of *R. malayanum* rooted into a sphagnum floored ferny alcove. The forest thinned abruptly and we found ourselves on an open silica-sandy ridge where drainage must be optimal. Around the perimeter were 3- to 5-foot mounds of peat, each topped by 10- to 15-foot plants of *R. wrayi*. None of these were in flower, and what little seed there was proved too immature to germinate. In the sand were several plants of *R. jasminiflorum*; only two were in flower, but one had corolla tubes of deep pink, certainly an improvement upon any variety I have yet seen in cultivation. In 1888 a variety with soft carmine-rose corollas was

sent to Kew from Perak by a Mr. L. Wray, but this must have been lost many years ago. It is of interest that as long ago as 1876 this species was commonly used after the manner of Stephanotis in wedding bouquets.

There were many plants of *R. malayanum* var. *malayanum*, a few of them with vinous-red flowers. The largest flowered varieties of this species are found in Celebes, and if it is to be used for further hybridisation it would seem preferable to use these rather than the Malayan varieties. Dropping steeply into the gloom of the jungle off the first ridge it was only a short while before all the rhododendrons took to the tree-tops, and then faded out altogether.

As we began to climb again towards Bunga Buah a tremendous crashing noise echoed through the jungle, spoor nearby confirmed that this was an elephant, and at the time it seemed ridiculous to be crossing tracks while looking for rhododendrons. We came upon a large toppled tree, and scrambling along its length I came upon a rhododendron unlike any I had then seen. As it was not in flower it was impossible to identify, but it appeared to be not unlike *R. moulmainense*. Time did not allow a climb to the summit, so with regret we returned to the car picking up seedlings of *R. jasminiflorum*, *R. malayanum*, and *R. wrayi* en route.

The second trip was to the granite ridge at Bukit Perangin (2,300 feet) to see *R. robinsonii*. A well-established colony grew not only in peaty pads overlying the rock, but also in bare crevices. In the hot sun the rock was unbearably hot, so it would appear that this species has heat resistant qualities which could be useful in very hot climates. The pale salmon-pink flowers were attractive enough, but disappointingly small.

By far the most interesting area visited in Malaya was the Cameron Highlands, and based at Tanah Ratah (4,500 feet) it was easy to wander along pleasant jungle walks and to study and collect a wide range of plants. Beginning with a walk to Robinson Falls it was not long before *R. jasminiflorum* var. *punctatum*, *R. malayanum*, and *R. wrayi* turned up, all growing predominantly terrestrially. Among other genera *Agapetes scortechenii* was outstanding, with plentiful *Diplycosia*, *Gaultheria*, and *Vaccinium* spp. As the sun went down leaving the valley cool and shadowed, patches of white showed up among the trees over and above the river. Binoculars revealed that these were the last flowers of *R. wrayi* apparent only when the glare of the sun was no longer reflected from the leafy canopy. After a scramble up the

riverbank I secured a few white tinged-pink trusses, much more attractive than would be imagined from the illustration in Dr. Sleumer's, *An account of Rhododendron in Malesia*. One cannot help but speculate on the future of this and other species in the Camerons as more land is cleared for cultivation. I heard that previously during February and March this rhododendron was conspicuous in its pink and white blossom, but now it is becoming much more difficult to see. I was especially interested in this species, as apart from the fact that it is one of the three known elepidote species from Malesia, its whole aspect was so strikingly similar to many hardier species from further North, and in fact its affinities lie closest to *R. pennivenium* from Yunnan. If the long attempted hybridisation between Malesian and hardier species is to be accomplished this is where the work should begin. In the future it is important that we should introduce from the same group *R. atjehense* and *R. korthalsii* from Sumatra. In the Herbarium at Bogor I noted that Van Steenis wrote on his herbarium sheet 8991 of *R. atjehense* to the effect that it would be well-worth cultivating. While it is doubtful if these species will be horticulturally valuable in North-West Europe they will certainly be of interest to growers in warmer climes.

A climb up Gunong Jasar (5,500 feet) revealed more willowy plants of *R. malayanum* straggling up to 3 feet; relying in many cases on other shrubs for support. What an impression of sophisticated evolution this species leaves with one, leaving it impossible not to speculate how it came about. Its flowers varied in this locality from glowing red to a dull reddish-purple. (Fig. 24). Towards the summit 50-foot trees of *R. wrayi* become dominant in places. The track winds through their huge trunks, many of which I was unable to reach around. On these trunks other rhododendrons, *R. malayanum*, *R. jasminiflorum*, and *R. perakense* were epiphytic,

Photo: Michael Black
Fig. 24—
Rhododendron malayanum
growing on Gonong Jasar in
the Cameron Highlands
of Malaya (see above).

forming a striking contrast between elepidote and lepidotes. *R. klosii* turned up here also, but none of its fragrant white flowers were seen.

Perhaps the most interesting locality in the Camerons is Gunong Brinchang (6,666 feet). It was easy of access, as a well-surfaced road leads to the V.H.F. Station on the summit. I soon came across *R. pauciflorum*, a charming low growing species with fine glossy foliage and exquisite rosy corollas with reflexed petals. *R. perakense* was here too, but none of its yellow flowers were seen. *R. malayanum*, *R. jasminiflorum*, and *R. wrayi* were there of course, as was another species I had found first above Robinson Falls, it was probably *R. scortechenii*, and though not in flower had fine glossy foliage. Another species here which also occurred at Robinson Falls appeared to approach *R. javanicum* var. *teysmanii*, how tiresome that none were in flower so that positive identification could be made, but a native described the flowers as being yellow.

The summit ridge was moss forested with loose spongy peat underfoot, and it was in this peat that 80 per cent of the rhododendrons thrived and seeded freely, but although hybrids have been recorded between *R. malayanum* and *R. jasminiflorum* none were seen here. An interesting plant collected here was of the monotypic genus *Pernettyopsis—P. malayana*. This low growing stoloniferous plant has attractive foliage but inconspicuous flowers, however, its berries are of the most vivid cobalt-blue.

Driving back through tea plantations to Brinchang Village we passed rocky outcrops from which *R. longiflorum* has been recorded, but lack of time made it impractible to search.

From Kuala Lumpur the next stopover was in Singapore. Mr. H. M. Burkill, Director of the Botanic Gardens, was kind enough to show me several interesting cultivars and hybrids of *R. simsii* in his private garden, and he told me that until 1947 a solitary plant of *R. longiflorum* grew high up in the branches of a *Shorea* sp. at Bukit Timah on Singapore Island. This last survivor has now gone. In years past I was pleased to hear that when rhododendrons were grown in the Botanic Gardens, seed was germinated upon crushed brick set in a bowl of water, just as one may deal with fern spores.

The flight from Singapore to Djakarta was spectacular but uneventful, and an hours drive saw me in the guest house of the famous Botanical Gardens at Bogor. While I was only able to find a couple of cultivars of *R. indicum* in moderate health, the

magnificent luxuriance of other plants in endless variety more than compensated. There are so many wonderful features in this garden, but I think I found the great *Canarium* avenue planted by Hasskard about 1837 the most impressive feature. It is certainly one of the most impressive avenues in the world.

It was a relief to escape from the heat of Bogor over Pontjack Pass to the mountain garden at Tjibodas on the slopes of the volcano Gedeh. I was surprised to see such plants as *Magnolia grandiflora*, *Magnolia* × *soulangeana*, and cultivars of *Camellia japonica* and *sasanqua*. There was also an interesting collection of azaleas. Apart from *R. indicum* cultivars and *R. mucronatum* in varieties which have been cultivated in Java since 1819, and were no doubt introduced straight from Nagasaki, *R. molle*, *R. scabrum*, and *R. linearifolium* are also long established residents.

More interesting were the plants of *R. javanicum* var. *javanicum*. There are three or four fine plants cultivated in a rock garden; only one had a few flowers remaining, but they were quite the finest I have yet seen in this species. Cuttings were taken, and this variety is now in cultivation in Australia. A grove of tree ferns some 200 yards distant supported numbers of self-sown seedlings both on their trunks and among the mosses and ferns beneath.

The highspot here was the climb to the volcano itself. Setting off into the tropical rain forest, luxuriantly dank and somewhat mysterious with great plants of *Asplenium nidus* drooping from overhanging branches, it brought to mind William Lobb who passed along this same track in 1845. The humidity here probably never sinks below 90 per cent, and even at the edge of the forest on a bright afternoon is between 80 and 90 per cent and in the morning at 7 a.m. is always 97–99 per cent. The lowest recorded humidity is in fact 79 per cent.

There are magnificent trees in the forest such as *Altingia excelsa* which reaches 200 feet and *Canarium altissimum*. Occasionally branches become so overloaded with their epiphytic edaphic gardens that they crash to earth, and among the debris were occasional straggly plants of *R. javanicum*, *Vaccinium lucidum*, and *Ficus diversifolia* which has attractive leaves ochre-coloured beneath. Lycopodiums were there in their thousands such as *Lycopodium nummulariaefolium* and *L. phlegmaria*, but at lower altitudes *R. javanicum* appears to be restricted to the tree tops.

Gradually between 5,000 and 5,500 feet the tropical rain forest merges into temperate forest where *Gordonia wallichii* is common,

and the air becomes moist and cold. The average temperature here is 64° F, and falls to only 6° above freezing have been known. *R. javanicum* then begins to appear terrestrially beside riverbanks and tracks, in fact anywhere the shade is not too dense. *R. retusum* var. *retusum* also appears, in gravel beds, on cliff faces, on muddy banks, and less frequently as an epiphyte. It is of interest that although the variety of this species found here has been in cultivation for many years its varieties *trichostylum* and *epilosum* have never been grown.

After spending the night below the elfin wood skirting the volcano, we climbed next morning ever more steeply through thickets of *Anaphalis javanica*, *Leptospermum floribundum*, *R. retusum*, *Vaccinium floribundum* and *V. varingaefolium*, *Gaultheria punctata*, and *Myrica javanica* to the rim of the crater, bathed periodically in sulphurous fumes.

From the crater's rim the view into its scorched depths was awe inspiring, but beyond rose the peaks of Central Java brushed in morning mists, an altogether splendid scene. I did not waste much time here and soon began to climb down to look for *Hypericum leschenaultii*, however, I only found one small plant. It was interesting to come across a branch of *R. retusum* which bore flowers with petaloid stamens. Adjoining Gedeh is the cone of the extinct volcano Pangrango, and here grows one of the rarest primulas in the world *Primula imperialis*—confined to this single peak. Out of flower it could be just as easily *P. helodoxa*.

So far I had only found two rhododendron species, three others are recorded from this locality, *R. album*, *R. citrinum*, and *R. malayanum*, so I set out in earnest search for them. Each rotting log was scanned, each rock and cliff face, while my two able Javanese assistants climbed high into numerous epiphytically draped trees. It seemed hopeless. I sat by a hot water effluent from the volcano to rest, and then glossy rhododendron leaves showed up among the mosses draping an overhanging branch, then a small yellow flower. I scrambled up quickly, and there was a single plant of *R. citrinum*. Further search in the locality of the hot spring turned up a batch of seedlings, but outwith this hot humid spot—nothing. Later on a high cliff face *R. album* showed up, but the plant was beyond reach in the time and with the equipment we had available. *R. malayanum* I failed to find at all. My assistants told me they had not seen it for some years.

Flying out from Djakarta for Sydney it felt as though a major part of the expedition had been successfully accomplished when

in fact Malaya and Java had merely provided a bonus for the main effort to be made in New Guinea.

Arriving in Lae evoked nostalgic memories of my expedition in 1965, and while plans were being finalised it seemed a good idea to climb a couple of thousand feet up Markham Point to see *R. retrorsipilum.* After a breathlessly hot morning's climb we reached a spot cooled by a fair breeze from the Huon Gulf which had been cleared seven years previously but was now being overgrown by 30 foot saplings. On a moss covered rotting log I found three plants of *retrorsipilum*, none in seed or flower. They did not look particularly healthy, and it would appear that the species became terrestrial when the ground was cleared but now was being adversely affected by inadequate light levels. Presumably it now goes back to the treetops. Ted Henty, who discovered the species as a single plant told me that the three I found were new to him—total known now four.

Shortly after, I flew into Goraina near the Waria River in the Eastern Area of Morobe District. While the altitude of this place—little over 2,000 feet left no doubts that a climb lay ahead before I should find rhododendrons, the Bubu Valley to the south west looked enticing. That day I set off for the village of Arabuka and reached there before nightfall. It was a hot uncomfortable climb through the forest, and I was glad to lie on the hard boards of my bunk. Sleeping fitfully, I was aware that the hut was swaying gently, but put this down to a pig rubbing up its guests the wrong way, later, however, I heard that this had been an earthquake. Next morning we set out for the next village, and after a short stiff climb we emerged from the forest quite abruptly into grassland. There, almost immediately were the first two rhododendrons;

Photos: Michael Black

Fig. 25 (*left*)—A new *Rhododendron* species found by Mr. Michael Black in the Bubu Valley, New Guinea (see p. 100).

Fig. 26 (*right*)—The Upper Bubu Valley above Govaina (see above).

two stunted bushes out of flower. A few hundred yards further on things looked brighter—several brilliant orange-yellow blotches of colour showed up in the grasslands. They could only be rhododendrons, and so it proved, a splendid species in Series Javanica. Picture well foliaged 3- to 4-foot bushes with opening flower buds of jade green, opening flowers of lime green to yellow, and fully mature ones orange-yellow shaded salmon-pink (Fig. 25). Each truss contained from six to fifteen flowers and was about a foot across. It cannot be too far from *R. aurigeranum*, but is no doubt a much superior thing, and will be in great demand by growers. Seedlings were plentiful beside the track, but cuttings were taken from the best varieties. In this suffocatingly hot grassland I was amazed to find that this species is entirely surface rooted—the thick rubbery roots lay horizontally no more than an inch below the sun-baked clayey gravel. The next village seemed so close across a deep valley I suppose a crow could have flown across in 10 minutes, but I took almost 5 hours following a trail which took me down into the forest before climbing again. There were very few rhododendrons, and nothing new.

After setting up my gear, there was just enough time before dark to climb through the native gardens and into the forest, accompanied by a gang of children. I asked them to bring any rhododendrons they could find, and when it was all but dark one little urchin turned up with a plant with clear pink tubular zygomorphic flowers which comes near to *R. warianum*. It was the only plant to turn up near the village, and fortunately cuttings I took from it struck. Had time permitted, it would have been well worthwhile climbing higher, but I had to get back to Goraina next day to fly out to Lae before driving to Goroka in the Central Highlands. Even though the haul of rhododendrons was small, the new one made up for everything.

After attending the famous Goroka show with its seething thousands of dancing natives, it was a relief to return to the Fatima River which I visited three years previously. I had two main objects, firstly to get living material of *R. maius*, and secondly to climb higher up the river. It hadn't changed much, the sparkling river, the magnificent silence, the morning mists wafting through the great Podocarps and ferns. It was as though it had been waiting for me to return. There were changes, however. Where economically valuable trees had been felled three years ago regeneration had now got well under way, and the first day I spent looking for plants I'd met before—the *superbum* I'd hoped would flower, a venerable

R. herzogii, some fine specimens of *R. culminicolum* var. *culminicolum*—all had been overgrown, and if not dead were moribund. The only species which appeared to be holding its own was *R. rarum*; it probably wasn't its ability to stand shade which

Three New Guinea rhododendrons exhibited by Mr. Michael Black.

Fig. 27—(*top left*) *Rhododendron macgregoriae*, typical of the predominantly yellow-flowered varieties found in New Guinea by Mr. Michael Black;
(*top right*) *R. macgregoriae* B.167 collected from the banks of the Al River near Nondugl in 1965 by Mr. Black, with rather larger flowers (see p. 191);
(*bottom*) *R. konori* 'Eleanor Black' B.97, A.M. July 15, 1969, as a flowering plant for the cool greenhouse. Exhibited by Mr. Michael Black, who collected it in New Guinea in the sluiced area of the old goldfield of Mairi Creek in 1965. (See p. 188).

effected its survival, but its quick growing straggly habit which enabled it to push out leaves beyond those of its competitors.

The recently felled areas yielded the usual quota of *R. superbum*, one of the species predominant in this area. I found two epiphytic wrecks of *R. maius* after a day's search—as I had suspected, this is a rare species in this locality. There wasn't anything I hadn't met before, though I was staggered by the size of an enormous epiphytic *R. superbum* which was 10 feet tall and 15 feet through—in flower it must have been a sight for the Gods and would have made a Parisian perfumery smell like an aerosol fly spray. A plant of *R. herzogii* I wrenched from a felled trunk, had the most gorgeous little tree frog under a leaf, it stared with "Disney"-like eyes, blended chamaeleonwise with the foliage; my helpers assured me it would make delectable kai kai so before it was devoured I put it in my pocket and let it loose later when no gourmands were about.

As ever, the riverbank was intriguing and gave easy access to many plants hard to find in the forest. In 1965 I came across a plant which appeared to be a hybrid between *R. rarum* and *R. culminicolum*, but now I found others half a mile from this locality, so perhaps this is a new species. It is remarkable that one of them has taken hold in cultivation, as it was of a fair size and suffered considerable root damage. In the grassland was a natural hybrid of *R. macgregoriae* and perhaps *R. leptanthum*, and in populations of *R. inconspicuum* from which I had obtained seedlings in 1965 the plants were scarcely half the size of those taken into captivity. I am unable to endorse the report that this species makes great splashes of colour in the wilds, here, 20-foot bushes seem reluctant to put out more than a dozen small trusses at once, and in any event the maroon-red flower colour is not conspicuous. Came the highest point upriver I had previously reached, I sat on the stones by the river near a large *R. macgregoriae*, I managed to catch a butterfly which was flitting from truss to truss, so it seems probable that this species may be pollinated by butterflies.

The river narrowed shortly into a series of cascades, rocky, and with large stones and boulders making up the banks which were overlaid by a shallow layer of humus. Suddenly between an Olearia and a Serauja I saw glittering foliage on a 10-foot bush, it was *R. maius*, liberally covered with its uniquely small glossy-maroon flower buds which give small hint of the splendidly scented white trumpets which emerge later. There were no seedlings about, so I took cuttings which are now growing both in Britain

and in Australia. How much more robust the plant is when terrestrial, however, it was still uncommon and I only found three plants along the riverbank all told. Further upstream a terrestrial *R. superbum* had just dropped enormous deep pink corollas, and nearby a *R. phaeochitum* gilded in the old gold of its new foliage overhung the riverbank, hiding a Salvatori's teal, one of the rarest ducks in the world, which splashed out on my approach.

There were fine Dimorphantheras scrambling over the riverbanks, and one species, probably *Dimorphanthera womersleyi* with white flowers was especially attractive. A *Cyathodes* sp. aroused my interest, but I was only able to find one plant, and feel fortunate that one rooted portion I tore off is now growing well. Onward we plodded and splashed, but nothing new emerged though there were magnificent specimens of *R. macgregoriae*. At last when time did not permit further exploration, and tantalisingly close to a grass-topped mountain, perhaps two days walk away, I turned back to base.

Packing all the plants and cuttings in plastic tubing, it seemed a good idea to strike camp and to travel over Daulo Pass to Kundiawa in the Chimbu District. As we were dropping down towards Goroka a number of bright pink-flowered plants stood out in the grassland and fallow native gardens, they appeared to be *R. dielsianum* var. *stylotrichum*. Daulo Pass is no picnic outing for any type of vehicle, with the road vulnerable to landslides and traffic hold-ups as heavily laden trucks grind to a halt in the mud. Climbing ever higher up to 8,000 feet, many rhododendrons showed up on the road cuttings, mostly *R. phaeochitum*, but nothing new until just over the summit I spotted a seedling which looked different. In leaf shape it appeared not unlike *R. cinchoniflorum* but on second thoughts it probably belongs to Series *Buxifolia* of the Subsection *Euvireya*, and may turn out to be new.

Arriving in Kundiawa it was interesting to meet Mr. Louis Searle, a local resident interested in rhododendrons. In his garden were many interesting plants including seedlings of Mainland Asiatic species and several hybrids. Among the most intriguing were rooted cuttings of a variety of *R. macgregoriae* with scented flowers which Mr. Searle had found near Goroka. The great limestone cliffs above the nearby district of Sina Sina seemed to merit investigation. It should have been possible to drive a Land-Rover to the top, but as we began to slide off the muddy road towards a steep drop I decided to stop and walk to the top. In the forest I found another species belonging to Subsection

Euvireya Series *Buxifolia*, which is not too far from *R. vandeursenii* though as none were in flower positive identification will have to wait. Another species in Subsection *Phaeovireya* didn't add up to anything I had previously seen, but it may prove to be a natural hybrid. *R. phaeochitum* was there in the grassland, as were *R. macgregoriae*, *R. inconspicuum*, and *R. konori*, but other identifications will have to wait until seedlings and cuttings flower in cultivation. Below the ridge the natives were most anxious to show me a small tree with spicily scented leaves which they rubbed on their arms as a perfume. It proved to belong to the genus *Evodia*, far from its relatives in China.

Nearby was a damp grassy area dotted with huge limestone boulders which had rolled from above. It supported an interesting population of *R. macgregoriae* both in the drier areas of the wet clay and also in the humus-filled cracks in the boulders. These plants had the largest flowers of the best colour I have yet seen in the species, and although there were not many to the truss, if this variety were crossed with, say the variety I found near Wabag in 1965, it should be possible to breed something superior to anything yet found in the wild.

We made an excursion along the Eastern slopes of the great Waghi Gorge where we found a species new to me, with foliage not unlike that of *R. lochae*. There were no plants in flower, but I was told they are red. Other species in the area were *R. konori*, *R. inconspicuum*, and *R. phaeochitum*, but there was nothing in flower but *inconspicuum*. A further trip was made along the Western flanks of the gorge, and here *R. zoelleri* turned up, an isolated population above a road cutting in the hot grassland. Nearby, but in a shadier area was a colony of *R. macgregoriae* with strikingly coloured red-orange flowers. *R. konori* was there in quantity, and it was interesting that Mr. Searle had persuaded a native medical orderly to plant a hedge of this species alongside his first-aid post. In Kundiawa itself Mr. Searle, with the backing of the District Commissioner, hoped to set up a garden devoted to native rhododendron species, and in the future this could become a desirable tourist attraction. By this time I had a large number of plastic tubes packed with plants and cuttings which had to be put out each night and carefully shaded by day, and it was with some relief that we set off to drive back to Lae, reaching there a day and a half later after an overnight stop in Kainantu. Packing and despatching the plants took another couple of days, and then it was time to arrange to revisit Edie Creek and Mt. Kaindi.

In 1965 I had been short of time, so this trip I determined to spend a week thoroughly investigating the rhododendron populations both at Edie and Mairi Creeks and on Mt. Kaindi. Scrambling over the old gold workings on the first afternoon I was sorry to find that considerable grass burning has been carried out by the natives, resulting in a lower rhododendron population. I arranged next morning to cover all the more open areas both at Edie and Mairi Creeks and to identify and count as accurately as possible the species there. This took a little over three days and the identifications and the percentage each species forms of the total population is noted here:

	Per cent
R. luteosquamatum	50·50
R. invasorium	14·05
R. gracilentum	12·00
R. nummatum	8·25
R. herzogii	5·05
R. konori	5·00
R. leptanthum	4·05
R. macgregoriae	1·05
R. solitarium	0·05
R. sp. aff. *R. maius*	0·05
R. sp. aff. *R. multinervium*	0·05
R. superbum	0·05
R. sp. *nov*	0·05
R. phaeochitum	0·05
R. nummatum × *R. luteosquamatum*	0·05
R. gracilentum × *R. invasorium*	0·05
R. sp. unknown	0·05

R. luteosquamatum really is the most efficient coloniser, but along with such as *R. nummatum* and *R. inconspicuum* is certainly among the least worth growing species. *R. invasorium* was more effective in flower with five- to eight-flowered trusses of red or scarlet and with neat foliage. *R. gracilentum* occurred in greater variety than I had previously suspected. From the foliage point of view varieties appeared with minute leaves clustered upon shortly internoded stems to others with eight times the leaf size. The flowers were predominantly pink, but others were paler and some bright red. Some were small completely prostrate plants, while others were tall and straggly up to 2 feet high. I am now convinced that plants I identified here as *R. anagalliflorum* in 1965 were nothing more than extreme forms of this species. *R. nummatum*

is attractive enough in foliage, but little else, its hybrid with *R. luteosquamatum* was of more interest—a single plant.

R. konori as it occurs here is remarkably uniform in foliage and habit, only the flower colour varies, from the least common pure white to a clear deep pink, they tend to be smaller than varieties in other areas. *R. leptanthum* is a perky plant with clear pink flowers, at Mairi Creek it enjoys the hot, dry clay, but in cultivation appreciates a fair amount of shade. The comparatively small number of plants of *R. macgregoriae* were all apparently non-descript, but few were in flower, and I thought it strange that none exhibited signs of hybridity under the prevailing conditions. By far the most interesting were those plants of which I only found single specimens or small numbers. I only found for instance one small *R. solitarium*, and one shapely bush of *R. superbum* many miles from any other recorded plant, as were a few plants of *R. phaeochitum*. Does this suggest that there are colonies of these species closer than is yet known, or has the seed blown a hundred miles or so from known localities?

While combing the mossy channels and gulleys at Mairi Creek I came across two plants of a species completely new to me belonging to the Subsection *Euvireya*. They appeared somewhere between a large *R. gracilentum* and say *R. vitis-ideae*. This must be the first new species discovered in this area for some years. At Edie Creek were two more unfamiliar plants, one I put close to *R. multinervium*, and the fine glossy foliage of the other suggested *R. maius*, but as neither was in flower positive identification will have to wait until the cuttings I collected grow larger. If all these oddments prove to be what I think, the number of recorded species from this area will be increased by a third, but if random burning in the area continues I would estimate that the total population will be cut by at least 50 per cent within five years.

On Mt. Kaindi I found the most remarkable feature to be the rapid regeneration of *R. solitarium* along a track where the natives had felled trees and let in more light. The regeneration was, however, largely limited to this species, and although *R. leptanthum*, *R. konori*, and *R. gracilentum* were plentiful in the area they didn't avail themselves so readily of the opportunity. I was amazed also to find small trees of *R. solitarium* 20 feet high. It is a pity that this species is apparently not overkeen on being moved, most, if not all the seedlings and cuttings I sent to Australia soon perished, although those sent home to Grasmere merely hung fire for a few months before growing on.

Along the track running to the helicopter pad a number of seedlings showed up which were too young to give any hope of identification, they were not unlike *R. herzogii*, but yet there was something atypical. Beyond the pad in an area of fallen trees were numbers of *R. nummatum* growing epiphytically, with *R. solitarium*, *R. leptanthum*, and *R. invasorium*, and more of the mysterious seedlings, try as I would I was unable to find a mature plant.

On my last visit I had only walked a short distance along the Bulldog trail, so one morning I set off alone to go further. At first the banks of *R. luteosquamatum* I had seen three years ago seemed more vigorous, but later a mixed colony of this species and *R. nummatum* had become considerably overgrown, with the plants of *R. nummatum* mostly dead. As this road was dug out in 1942, it would give the species under a similar situation a life of about 25 years, surprisingly long considering the rapid growth of vegetation in the area.

The track, it could scarcely now be termed a road, is mostly overgrown and parts have fallen away on steep slopes leaving only an unstable way of a foots breadth over sheer rocky and muddy slopes. Some of the great trees which had fallen across, supported numbers of *R. konori*, *R. leptanthum*, *R. nummatum*, and *R. herzogii*, and more seedlings appeared similar to those on Mt. Kaindi. Half a days march on I came upon a splendid bluff, and with nothing new in sight sat down to enjoy the blue-hazed valley below, the silence of the great forest, the butterflies, and the birds. I walked into camp late in the afternoon, and after a further day packing plants and writing up notes, set off for Lae, stopping en route to admire *R. aurigeranum* near Bulolo. Two plants were in full bloom on a nearby hillside, and provided such fiery splashes of colour that I felt I had underestimated this species in the past.

I was soon ready for the next, and as it proved, the last stage of the expedition into the Rawlinson Range of mountains. By then, in June, the weather was beginning to break, and we had some difficulty flying out of Lae. On the first attempt it was too misty to get off the ground, on the second we managed to fly some 30 miles along the coast before being turned back by low swirling clouds, but finally we managed to get away by taking off early one morning and wending between forested peaks to touch down at Mindik just before the cloud came down and rain began to fall. We had a long trudge ahead, so after a certain amount of

haggling over the distribution of loads with the bearers we set off for the village of Aregenang where I hoped to spend a week.

The village lay across a deep valley, and getting away from the airstrip into the forest it was only a matter of yards before the first rhododendron showed up as a low epiphyte, *R. dielsianum*. Soon, *R. konori* appeared in a similar situation low down on a mossy trunk, in deeper shade than any in which I had previously seen it. How the rain fell, and how slippery the narrow track became, until at last we reached the river at the bottom. I had a spell here perched on a huge rock to smoke a soggy fag and to remove a few leeches, and noted that there were no rhododendrons on the banks. Beginning to climb up through the forest to the village was agonising with the rain, the slippery trail, and with aching muscles, but around four in the afternoon the track became more worn, and rhododendrons appeared on the track cuttings and in the grassland alongside—we were soon in the village. We set up our camp in and around a stilted grass thatched hut, and it was not long before we had the billy boiling and tea up.

Next morning early, a native brought in a fine plant of *R. zoelleri* in flower, but after breakfast I set off into the forest above the village. Strangely, there were no rhododendrons on the road cuttings or in the fallow gardens, but as soon as I entered the forest *R. dielsianum* turned up in quantity, often in deep shade. For a while it looked as though this was the only species I should find, but soon seedlings of another species turned up on rotting logs and fallen trunks. I was unable to find any in flower, but it would appear to approach *R. incommodum*. By eleven it was pouring down, and by two I was so wet and mud-smeared that I made tracks back to camp somewhat disappointed with my finds. It's always so frustrating to be rained-off with the thought of something good nearby. This happened so often during this part of the trip, but during clear spells it was worthwhile scrambling through the bush and grassland below the village. On one of these minor adventures I came across a well-foliaged plant for all the world like a super *R. konori*; the natives told me this had red flowers, and this was to prove to be my first plant of *R. hellwigii*.

Another day I climbed well above the village into the forest determined to find something new; nothing exciting appeared until after lunchtime when after looking over dozens of trunks and fallen logs a gangly unhealthy specimen of *R. pachycarpon* appeared, unhappy in its epiphytic role. Later, seedlings appeared which may prove to be of *R. herzogii*. Another day I walked down

to the ridge where *R. zoelleri* was growing, and while it was unfortunate that all those in flower had been collected for the Herbarium without being photographed, the situation of the colony in grassland and thin bush alongside a track was interesting as all these plants were growing in a 3 inch to 2 foot layer of humus overlying limestone. Thousands of seedlings sprung from mossy tufts in half-shade. Returning to the village I came upon a small colony of *R. macgregoriae* growing in clay under a light shade canopy—this variety had the least ornamental flowers in the smallest trusses I have yet met, but it had the largest foliage. I met *konori* and *hellwigii* again, but nothing else. There were pretty *Dimorphanthera* spp. here, especially one with white tipped red flowers, and fine foliage plants, *Ficus*, *Begonia*, and ferns in never ending assortment.

A splendid *Eugenia* sp. caught my eye, and many orchids, but after a few days it became apparent that it does not really pay a specialised collector of one genus to spend too long in one small area. Accordingly, after a week I set off back to the strip at Mindik taking a long route back; nothing new turned up and I was fortunate in being able to fly straight to Lae, landing there 20 minutes later. It had been a worry all along that the weather might close in for a long period, and had this been the case it would have taken a week to walk back. I still had over a week in hand, but the mountains remained wreathed in mist and rain and made it impossible to get anywhere interesting, so I had to leave for Australia to meet a commitment in Melbourne before I could return to the Western Highlands.

As is usual with such an expedition one is grateful for the enormous amount of help and hospitality which make the whole thing feasible, and I take this opportunity to thank all those whose names are too numerous to mention here.

As usual I took a number of soil samples. The results of their analyses are noted herewith:

Locality	*pH*	*Loss on ignition*	*Texture*
Ulu Kali Ridge	5·8	4·9	Sand
Bukit Perangin	4·6	69·0	Peat
Robinson Falls	4·5	68·2	Peat
Gunong Jasar	4·9	58·8	Peat
Gunong Brinchang	4·4	73·5	Peat
Gedeh (ground)	5·2	7·8	Clay
Gedeh (branch)	4·3	72·5	Peat

Waghi Gorge	4·8	8·2	Clay
Sina Sina (grassland)	5·7	5·2	Clay
Sina Sina (forest)	4·4	67·0	Peat
Mt. Kaindi	4·3	74·5	Peat
Aregenang (ground)	5·5	9·2	Clay
Aregenang (branch)	4·6	76·7	Peat

AWARDS TO RHODODENDRON HYBRIDS IN THE BRITISH ISLES AND THE UNITED STATES

By E. H. M. COX

IT is interesting to note the rules under which awards to rhododendron hybrids are given in the British Isles and the United States.

With us awards are recommended by the Rhododendron Committee of the Royal Horticultural Society and considered and confirmed by the Council. This has been a gradual process. As far as I can find, one of the earliest awards of the F.C.C. (First Class Certificate) was given to the 'Countess of Haddington' in 1862, the first Award of Merit to 'Rosy Bell' in 1894 and the first Certificate of Preliminary Commendation to 'Brenda' in 1935.

No rules have been laid down except that an F.C.C. cannot be granted unless the number of votes in favour is at least three times the number of votes cast against. With other awards the proportion must be at least two in favour to one against. The F.C.C. is the highest award, the P.C. the lowest. The absence of written rules or regulations is largely because of the number of experts on the Rhododendron Committee, both amateur and professional, and because the granting of awards is centralised in the R.H.S. halls at Vincent Square and at their gardens at Wisley. Thus no set rules are necessary.

In the United States the granting of awards has produced several difficult problems. They are under the control of the American Rhododendron Society, which apart from the central Board of Directors is divided into eighteen chapters covering most areas. But climatic differences which necessitate growing completely different sets of plants to be judged hundreds and thousands of miles apart have made the formulation of rules a necessity.

In addition there are various differences between the conception of the awards in the two countries. With us it is the quality of the plant as shown which is paramount. Ease of cultivation and propagation do not enter into it, nor are the chances weighed of it ever becoming a popular plant.

On the other hand at a Directors' Meeting of the American Rhododendron Society held on November 12, 1967 the purpose of the Revised Awards Program was stated to "improve the quality of Rhododendron plants available to the general public by discovering superior plants produced by breeding and selection, by publicizing these plants, and by utilising the facilities and influence of the American Rhododendron Society *to insure propagation and distribution*" (the italics are mine).

Owing to lack of space I cannot give the programme in its entirety but I have tried to condense it to include the salient points of difference. Again owing to distances each chapter of the Society has to appoint its own committees.

As a preliminary, plants, always clonal, have to be included in an "eligibility list passed by a quorum of the local committee, but it is stressed that the inclusion of a plant on the list in no way constitutes an award". Once a plant is placed on this list in any subsequent year it can be put up for a Conditional Award. For that award the plant need not be in the trade or under active propagation "but the sponsor shall indicate his intention to propagate and distribute".

Next in rank is the Award of Excellence for which any plant that has gained a Conditional Award is eligible. "The judging shall be in the same manner as for Conditional Award. To be eligible a plant must exist in quantity and proof must be offered that an active program of propagation is under way."

The top award is Superior Plant Award. "Any plant which meets the following requirements shall be eligible to be judged for this award:

A. It shall be the holder of an Award of Excellence conferred in a prior year.
B. It shall be in the plant trade and distributed by more than one nursery.
C. It shall be nominated for award by any member of the Society, and the judging shall be the responsibility of the Chapter to which the nominating member belongs.

Judging for this award shall be as follows:

A. At least five judges shall inspect it.
B. They must inspect at least three plants growing in gardens separated one from the other by not less than 1 mile.
C. More than one negative vote will deny the award.

D. An objection voiced by any five members of the Award Committee of another Chapter shall be sufficient to postpone the award . . . in case of such objection after consulting with all parties the Directors of the A.R.S. shall render a final and binding decision."

You will notice the difference between the concept of judging between the two countries. In the United States stress is made on availability which is never a point in our awards. I have looked briefly through most of the catalogues in this country specialising in rhododendrons. Roughly about five hundred hybrids have received either the F.C.C. or the A.M. since the end of the First World War, and of these I have seen about two hundred and twenty-five listed, more than what I expected, seeing that it must have been impossible to propagate plants in bulk which received an award just before or during the Second World War.

The other point is the examination of at least three growing plants in the United States before the top award can be granted, whereas at the Wisley trials only one growing plant is examined. Another point is that only a small proportion of plants put up for an award at the R.H.S. are chosen for Wisley Trials. On the other hand it is inferred that if a plant is chosen for trials at Wisley it is already available. One plant in one particular position may sometimes be rather a doubtful test but vigour and habit are taken into consideration.

It is certainly easier for a plant to get an F.C.C. here where it is entirely up to the Rhododendron Committee whether to skip the P.C. and A.M. on its first showing and grant an F.C.C. On the other hand I can imagine that the rules for judging for a Superior Plant Award are so stringent in the United States that very very few will make the grade. Still I wish them luck.

AMERICAN RHODODENDRONS ON EASTERN LONG ISLAND

By WALTER MAYNARD

IN recent years a number of rhododendron hybrids have been developed in the United States which add greatly to the choice of plant material available to the rhododendron enthusiast in areas similar in climate to that of Eastern Long Island—a 0° minimum in winter and a summer maximum in the low 90°s (zone 7A).

Some of these hybrids are so good that they seem worthy of being included in collections in even the most favoured climates. For example, 'Pink Twins' (*catawbiense* × *haematodes*) is nearly unique in that it has double florets; these are about 2 inches in diameter, fifteen or more in a truss, of a clear shrimp pink colour. The trusses are ball-shaped, and the plant is extremely floriferous, a semi-dwarf reaching about 4 feet at ten years, with excellent dark green foliage. When in bloom, at the end of May, it presents an appearance of delicacy and grace that makes it difficult to compare with any other rhododendron.

Another semi-dwarf of great refinement is 'Windbeam' (*carolinianum* × *racemosum*). This plant, which blooms in mid-May, is covered with small trusses, several to every terminal, of a light clear pink colour. The leaves resemble those of *carolinianum* but are smaller and clothe the plant more densely than in the case of *carolinianum*. 'Windbeam' is like no other rhododendron and has the added virtue of being extremely hardy—it is said, to 20° below 0°.

Another *carolinianum* cross is 'Dora Amateis' (*carolinianum* × *ciliatum*), this one a dwarf, reaching a little over 2 feet at ten years. In the second half of May, this plant, which has foliage like *carolinianum*, is nearly hidden by white trusses composed of nine florets of good substance about 1½ inches across. This plant is not yet widely distributed, but has won many awards, which it well deserves, for its elegance and floriferousness.

The plants discussed so far have all been the creations of Eastern hybridists. An excellent dwarf plant originating on the Pacific Coast seems well worth mentioning—'Odee Wright'.

This cross of 'Idealist' with 'Betty Robertson' has dense dark green foliage, and in mid-May displays a quantity of sulphur-yellow trusses of a size unusual in so small a plant. It makes an interesting contrast with 'Dora Amateis'.

A rhododendron of entirely different character is Joseph Gable's 'Cadis' ('Caroline' × *discolor*). This is a plant of medium stature, probably reaching 5–6 feet in ten years. Its growth habit is excellent, as high as it is wide, well clothed with bright green leaves, which it retains for at least two years. The flowers are outstanding; the 4-inch silvery pink florets are especially firm and satiny in texture, set on long red pedicels. The somewhat open, erect trusses have an airy texture that is extremely pleasing (Pl. 7). Once seen in flower, 'Cadis' could not be mistaken for any other rhododendron.

Another striking plant is 'Mrs. W. R. Coe', one of the hardy hybrids originally developed by C. O. Dexter on Cape Cod. The Dexters are of uncertain parentage, but *fortunei* is believed to be prominent in their ancestry. Concerning this shrub, Mr. Leach in *Rhododendrons of the World* had this to say: "The best Dexter hybrids with deep pink flowers are superb. One which has been named 'Mrs. W. R. Coe' by its owner has a vibrant radiance in the color of its large blossoms which sets it apart from others and makes it one of the finest Rhododendron hybrids in existence anywhere." 'Mrs. W. R. Coe' is a plant of relatively low stature, spreading wider than high. The bright green leaves cover the plant well, the trusses composed of $4\frac{1}{2}$-inch florets are held erect. Blooming time in the author's garden is late May.

All the above six plants are available from specialist nurserymen in the United States. Each possesses unusual characteristics and, therefore, could add to the interest of rhododendron collections in those parts of the world where they are not known.

RHODODENDRONS IN SCANDINAVIA

By K. E. FLINCK

A short article on the growing of rhododendrons in Scandinavia must be rather selective. The geographical area to be covered is vast and the climate within this area varies from the Atlantic on Norway's west coast and isles, bathed by the Gulf Stream, to the perpetually frozen tundra in the Arctic. For those British readers who have an unfavourable climate, it may be of some interest to learn about rhododendrons that have done well in this severe Scandinavian climate.

In exceptional winters, screen night temperatures are from 0°–15° F in most areas to which I am referring. In addition, in such winters the ground freezes due to the prolonged cold to a depth of from 1 to 2 feet. Very often in early spring the ground is still frozen; the weather is very clear with night frosts and south-easterly drying winds which scorch particularly the dwarf species. In late spring and early summer there is normally insufficient rainfall for optimum growth and watering may be required.

The large rhododendron gardens that are found very frequently in Great Britain are unknown in Scandinavia: a few medium sized private rhododendron gardens exist, but most gardens are small. However, the botanical gardens of Gothenburg, Copenhagen and Kolding have good collections of rhododendrons. On the west coast of Norway no mature large collections of rhododendron species exist—this despite the fact that the climate there is the best for their planting—though it should certainly be possible to achieve results similar to those experienced on the east coast of Scotland.

In Scandinavia the main plantings are from the Ponticum Series, being species and hybrids thereof, together with deciduous azaleas. *Rhododendron catawbiense* is normally present as a hybrid, but the pure white form, 'Catalgia', is grown more and more and is quite attractive. *R. brachycarpum* grows very well and appears better than plants which I have seen in Great Britain. A form from Korea with very large leaves may possibly be described as a sub-species. It is very hardy having withstood −40°F in Finland. *R. smirnowii* has attractive leaves, but it is essential to find a form with soft rose-coloured flowers or it will clash with the surrounding colours.

The group of species, or sub-species round *metternichii*, i.e. *degronianum*, *makinoi*, *chrysanthum* var. *niko-montanum*, *hedakanum*, and *yakusimanum*, are, when at their best, good everywhere. Of these various forms those collected by Wada, which he has called aff. *metternichii* and *metternianum*, are best. The leaves are first class and the flower an attractive soft rose. The former was introduced into Great Britain by Reuthe.

R. aureum (Fig. 28) grows and flowers well in several places and the Japanese form would seem to be more amenable to culture than the Siberian. I previously mentioned var. *niko-montanum* and *hedakanum*, although these are not species, but natural hybrids between *brachycarpum* and *aureum*. In Germany, Mr. Hobbie has used one of these natural hybrids in crosses with various species and obtained extremely hardy dwarfs with very attractive dome shapes. *R. yakusimanum* is found in the F.C.C. form, but is also represented by plants raised from Yakushima collected seeds. Strangely enough, the latter plants are hardier, and are as beautiful in Scandinavia as in Great Britain.

Members of the Fortunei Series do reasonably well in the milder areas of Scandinavia. The hardiest are *fargesii*, *oreodoxa*, and *sutchuenense*, whilst *calophytum*, *decorum*, *discolor*, *fortunei*, *praevernum* and *vernicosum* demand sheltered conditions. The largest plants I have seen are of the following heights:

	Feet		*Feet*
calophytum	7	oreodoxa	10
decorum	7	praevernum	9
discolor	13	sutchuenense	10
fargesii	15	vernicosum	8
fortunei	10		

Photos: Gothenburg Botanic Garden

Fig. 28—*Rhododendron aureum* collected in 1952 by Mr. Nitzelius in Central Hokkaido Japan, at 2,000 m. (see above).

Fig. 29—*Rhododendron longesquamatum* in the Gothenburg Botanic Garden (see p. 118).

These plants are all still growing vigorously and should attain larger dimensions. Hybrids between these species have shown great resistance to adverse conditions and grow even better. Good hybrids between *calophytum* × *sutchuenense* are on record.

From a wide range of series, individual members have proved hardy and satisfactory at times although unexpected. In the Argyrophyllum sub-series, *insigne* has done well, and in places, *argyrophyllum*. *Pachytrichum* and *longesquamatum* in the Maculiferum sub-series also do well. In Gothenburg there is a beautiful plant of *longesquamatum* (Fig. 29). At Sophiero in southern Sweden a fairly large *auriculatum* flowers well and regularly.

Of the yellow-flowering species, in the Thomsonii Series, *campylocarpum* is most difficult, while *caloxanthum* is completely hardy in places. I also consider L. & S. *R. wardii* 5679 particularly good. This makes an excellent parent, and has been used by the German breeder Hobbie. As well as having good flowers, these hybrids also have beautiful leaves. I have crosses between *yakusimanum* and *wardii* which have a fine semi-spherical form, with apricot buds and yellow flowers when open. They are hardier than either parent. In sub-series Selense, H. Smith's *esetulosum* has proved hardy, as well as a Rock collection from Beima Shan which the Danish horticulturist Nestor A. Olsen has grown from Rock's seed. Olsen describes his rhododendron in the following manner: "My plant is 2 × 3 m. (7 × 10 feet) and covers itself every spring with fire-red buds opening to large light yellow flowers." This plant is either a new species or a natural hybrid.

Williamsianum thrives as a dwarf shrub, but does not attain the dimensions one finds in softer climates. *Litiense*, *souliei*, and *puralbum* are found in some places. It seems that Smith's and Hu's collectings in this series are, in general, hardier than Forrest's.

The Swedish collector, Dr. H. Smith, made several expeditions in western China, most of his rhododendrons coming from Sikang. Another Swedish collector, Dr. Hummel collected in Kansu during S. Hedin's last expedition. The material collected is represented at its best in the Gothenburg Botanical Garden where can be seen *vernicosum* (Fig. 30); *esetulosum*, *concinnum*, *phaeochrysum*, *prattii*, aff. *przewalskii* (Fig. 33), *souliei*, *watsonii*, aff. *weldianum*, and some others which are probably new species belonging to the Taliense, Lacteum and Lapponicum Series. The plants are completely hardy up to −15°F. I hope that some day Mr. Davidian, together with Mr. Nitzelius of the Gothenburg Botanical Garden, who is our

Photo: Gothenburg Botanic Garden
Fig. 30—*Rhododendron vernicosum* H.Sm. 13976, collected by Dr. H. Smith on Tapaoshan in Sikiang, China (see p. 118).

Photo: Stockholm Botanic Garden
Fig. 31—*Rhododendron rufum* collected by Dr. J. Rock, in the Stockholm Botanic Garden (see p. 120).

Photo: Copenhagen Botanic Gardens
Fig. 32—*Rhododendron argyrophyllum* var. *leiandrum* in the Botanic Gardens, Copenhagen.

Swedish authority on this genus, will describe the collections of Smith and Hummel.

Lapponicum rhododendrons do well, but several species are not reliably hardy. The better ones are *chryseum*, *dasypetalum*, *edgarianum*, *fastigiatum*, *flavidum*, *hippophaeoides*, *impeditum*, *ravum*, *rupicola*, *russatum*, *scintillans*, *stictophyllum*, and *tapetiforme*. It may be of interest to mention that *R. lapponicum* is as difficult to cultivate in Scandinavia as it is elsewhere. I have seen this species in the botanical gardens in Oslo, Stockholm, Gothenburg, Copenhagen, and also grown it in my own garden. It flowers and gives viable seeds in my garden. My experience is that the American form from Mt. Washington is easier to cultivate than the north Scandinavian. I believe that, in fact, this species is winter tender

outside its normal area and this may be the reason why it is so difficult.

Whilst on the subject of dwarf species, *camtschaticum* can be considered a good grower. I have had an interesting experience in my own garden with this species. *Camtschaticum* seeds itself freely, but only when grown on peat walls, and the seedlings only appear on the face of the walls where they grow in hundreds.

In some areas dwarfs like *keleticum*, *radicans*, *saluenense*, *prostratum*, *pemakoense*, *imperator*, and *lowndesii* grow well. The three latter species, surprisingly, do well in Copenhagen. It is interesting to note that *uniflorum* is deciduous in Sweden.

The Taliense series includes some very hardy members. *Rufum*, for instance, is hardy in Stockholm, attaining at times a height of 10 feet (Fig. 31). I have obtained from Mr. Reuthe in England some "*bureavioides*" which are as hardy as *catawbiense*, and as beautiful as *bureavii*, which is somewhat tender. To me the plants look quite different and should be maintained as separate species. *R. clementinae* is also a hardy plant with a beautiful leaf and *wiltonii* is not only beautiful in leaf, but has pleasing, if rather small, flowers. Some plants in the Lacteum series are also good in leaf and good parent plants: for instance *traillianum*. I have obtained a good hybrid between this species and *williamsianum*. *Oreodoxa* grows in many parts of southern Sweden unsatisfactorily. Nitzelius, however, crossed this species with *rufum* and obtained a hardy and very floriferous plant named 'Rufudoxa'.

Whilst mentioning recent hybridisers of some importance to Scandinavia, I should like to return to Mr. Hobbie from Germany, who is cultivating a large number of species (ca. 300), many of which are from the Hu collections. He has crossed a wide range of species with one another, as well as with garden hybrids. The results are generally more interesting for Scandinavia than the newer British hybrids, being much hardier. The red-flowered semi-dwarfs with *forrestii* as one parent are hardy and reliably free-flowering. The colours are, however, inferior to that of 'Elisabeth'. Mr. Hobbie has also a hybrid named 'Lavendula', which is a cross between (*russatum* × *saluenense*) × *rubiginosum*, with lavender-rose flowers (5–6 cm) in winter, bronze-coloured leaves, and which is bud-hardy at −15° F.

I will now refer to the last set of species which are of importance. The early flowering *mucronulatum*, *dauricum* and *dahuricum* hybrid Praecox are good in mild winters, especially the pink-flowered *mucronulatum* forms. The dwarf rhododendrons from the Euro-

pean Alps are useful, even if they are not spectacular. The really attractive ones are *kotschyi* and *hirsutum album*. *R. ferrugineum* is hardly ever the correct plant, nearly all plants under this name being the hybrid *hirsutum* × *ferrugineum*, which is much easier to cultivate. The small, useful American Carolinianum series is not so important in itself, but is of importance in supplying parents for dwarf hybrids. *Carolinianum* itself is a good plant when well grown, but demands perfect drainage and should never be permitted to dry out. *R. minus* does not have a flower of much merit.

The members of the last three series mentioned are most important as parents of a range of dwarf hardy hybrids. *Carolinianum* and *minus* have been crossed with *ferrugineum* and *hirsutum*, the result being the widely grown 'Wilsonii' of gardens, 'Myrtifolium' and 'Punctatum' hort., which are very suitable for massing.

In the United States a number of valuable dwarfs have been bred, amongst which are the following: 'Ramapo' (*carolinianum* × *fastigiatum*), a Nearing hybrid with pale violet flowers and a light blue-green foliage. This, for Scandinavia, is better than any Lapponicum species. 'P.J.M.', a hybrid between *carolinianum* and an unknown species from China, has glossy green foliage in summer which in winter is mahogany-copper, and lavender-pink flowers. 'Windbeam', a Nearing hybrid, is *carolinianum* × *racemosum*, with white flowers changing to soft pink at maturity. 'Conewago' is a Gable hybrid between *carolinianum* and *mucronulatum*, with amaranth-rose flowers in April. The dwarf American hardy hybrid I prefer is 'Dora Amateis', a cross between *carolinianum* and *ciliatum*. This has withstood −15°F in my garden and subsequently flowered, with the plant fully covered with white five-petalled 1½-inch flowers. The leaves are highly polished and give the plant a sparkle not found in other dwarf-hardy rhododendrons.

I will finish my comments with a few words on azaleas. The deciduous plants are by far the best in Scandinavia and the hardy species better than hybrids. Of the Asiatic species, the best of all is *schlippenbachii*, completely hardy and reliable if free flowering. *Albrechtii* and *japonicum* are both a must, but *japonicum* should not be permitted to destroy the delicate perfume of other azaleas, *luteum* helps to put a yellow into the rhododendron colour palette.

For elegance and delicacy of colour, the American species come first. I like *vaseyi*, *arborescens*, *calendulaceum*, *occidentale*, and *atlanticum*, which all do well. My favourites, however, are *roseum*

and *bakeri* although the flowers are not large, but for wealth of flowers, fragrance and attractive colours they merit wider cultivation.

Finally, a word on the general garden rhododendron hybrids. The hardy reliable ones are those which have been out of fashion in England for many years. These include 'Catawbiense Grandiflorum', 'Roseum Elegans', 'Everestianum', 'Cunningham's White', and 'Jacksonii'. In the mildest parts I have found good plants of 'Goldsworth Yellow', 'Pink Pearl', 'Britannia', 'Blue Peter', 'Luscombei', 'Ascot Brilliant', and 'Loder's White'. The new hybrids coming from the eastern United States are attractive and hardy.

I hope that my indicating which plants it is possible to grow in Scandinavia, will prove to be of some value to members, who garden under adverse climatic conditions, although an article of this kind is bound to be fragmentary. Should any reader wish to have any additional information I shall be only too happy to supply it.

List of rhododendron species that the author has seen well established in Scandinavia without any winter protection:

Albiflorum series
albiflorum
Anthopogon series
primulaeflorum
sargentianum
trichostomum
Arboreum series
argyrophyllum
hunnewellianum
insigne
Auriculatum series
auriculatum
Azalea series
Subseries Canadense
albrechtii
canadense
pentaphyllum
vaseyi
Subseries Luteum
arborescens
atlanticum
bakeri
calendulaceum
canescens
japonicum
luteum
nudiflorum
oblongifolium
occidentale
roseum
viscosum
Subseries Nipponicum
nipponicum
Subseries Obtusum
kaempferi
kiusianum
linearifolium
nakaharai
obtusum
tschonoskii
yedoense
Subseries Schlippenbachii
nudipes
reticulatum
schlippenbachii
Barbatum series
Subseries Glischrum
hirtipes
Subseries Maculiferum
longesquamatum
pachytrichum
Campanulatum series
campanulatum
Campylogynum series
campylogynum
Camtschaticum series
camtschaticum
Carolinianum series
carolinianum
minus
Dauricum series
dauricum
mucronulatum
Falconeri series
fictolacteum (grows extremely slowly)
galactinum

Ferrugineum series
ferrugineum
hirsutum
kotschyi
Fortunei series
Subseries Calophytum
calophytum
Subseries Davidii
praevernum
sutchuenense
Subseries Fortunei
decorum
discolor
fortunei
houlstonii
vernicosum
Subseries Orbiculare
orbiculare
Subseries Oreodoxa
fargesii
oreodoxa
Glaucophyllum series
Subseries Glaucophyllum
brachyanthum
glaucophyllum
Grande series
watsonii
Heliolepis series
brevistylum
desquamatum
rubiginosum
Lacteum series
agglutinatum
dryophyllum
phaeochrysum
przewalskii
traillianum
Lapponicum series
capitatum
chryseum
complexum
cuneatum
dasypetalum
drumonium
edgarianum
fastigiatum
fimbriatum
flavidum
glomerulatum
hippophaeoides
impeditum
lapponicum
litangense
lysolepis
microleucum
orthocladum
ravum
rupicola
russatum
scintillans
stictophyllum
tapetiforme
Lepidotum series
Subseries Lepidotum
lepidotum
lowndesii
Micranthum series
micranthum
Neriiflorum series
Subseries Forrestii
chamae-thomsonii
forrestii
Subseries Haematodes
haematodes
Subseries neriiflorum
dichroanthum
Subsp. apodectum
scyphocalyx
sanguineum
Subsp. didymum
Ponticum series
Subseries Caucasicum
adenopodum
brachycarpum
caucasicum
chrysanthum
degronianum
makinoi
metternichii
smirnowii
yakusimanum
Subseries Ponticum
catawbiense
maximum
ponticum (true)
Saluenense series
calostrotum
fragariflorum
keleticum
prostratum
radicans
saluenense
Semibarbatum series
semibarbatum
Stamineum series
wilsonae
Taliense series
Subseries Adenogynum
adenogynum
adenophorum
alutaceum
balfourianum
bureavii
"bureavioides"
pratti
Subseries Roxieanum
bathyphyllum
gymnocarpum
Subseries Taliense
clementinae
doshongense
flavorufum

glaucopeplum
schizopeplum
taliense
vellereum
Subseries Wasonii
rufum
weldianum
wiltonii
Thomsonii series
Subseries Campylocarpum
callimorphum
caloxanthum
campylocarpum
Subseries Selense
esetulosum
Subseries Souliei
litiense
puralbum
souliei
wardii
Triflorum series
Subseries Augustinii
augustinii
Subseries Triflorum
ambiguum
keiskei
Subseries Yunnanense
amesiae
concinnum
hormophorum
hypophaeum
oreotrephes
polylepis
searsiae
yunnanense
Uniflorum series
imperator
ludlowii
pemakoense

Photo: Gothenberg Botanic Garden
Fig. 33—*Rhododendron* sp. aff. *przewalskii* at Gothenburg (see p. 118).

RHODODENDRONS AND CAMELLIAS FOLLOWING DROUGHT CONDITIONS IN MELBOURNE, SUMMER 1967–8

by A. W. HEADLAM

I WROTE in the 1969 *Year Book* on the behaviour of rhododendrons and camellias under severe drought conditions in Melbourne.

The flowering season of these genera following the drought revealed that camellias had a far greater resistance to heat and drought conditions than had been generally realised. Despite the heat, low relative humidity, and drastic restrictions on watering, the early varieties still set an abundance of flower buds, but these were filling perhaps somewhat slowly.

Good autumn rains occurred, fortuitously, just in time to prevent possible bud drop, or even worse, for at this time the reservoirs were rapidly approaching a dangerously low level, and a few more weeks without rain would have put an end to watering, even by bucket and watering can.

The flowering season of the early varieties was, as a consequence, delayed by up to six weeks, but the flowers, when they eventually somewhat belatedly opened, were of a surprisingly high standard.

The flowering season of sasanquas was likewise delayed, and they made, I think, one of the best displays for many years, the flowering season having been transposed from early to late autumn, meant that they missed most of the heat and winds to which they are usually subjected earlier in the season.

The lateness of the season was reflected in the greatly diminished number of flowers on the competition benches at the Australian Camellia Research Society's earlier monthly meetings, however, as the winter progressed with better than average rainfall, the mid-season and later flowering camellias appeared in almost normal quantities, and a quality which was of a very high standard. It was somewhat difficult to realise that only six months ago the situation had been so serious.

I think it can be safely said that camellias were one of the

shrubs which stood up best to drought conditions, for only on rare occasions did a plant die. Probably container grown camellias required the most attention as regards the provision of shade and watering.

In some new gardens where a considerable number of camellias and rhododendrons had been planted, it was found that rhododendrons required all of the available water for survival, whilst the camellias, apart from the rather meagre rainfall, received virtually no other water throughout the whole summer.

They were in quite open positions and received full sun for practically the whole day—the surface soil was powder dry, and even at a spade's depth there was little or no apparent moisture, however, they all survived and following the autumn and early winter rains, produced some remarkably good flowers.

In our garden where some additional precautions had been taken to alleviate the adverse conditions, an abundance of flowers, comparable in size and quality to any normal year was produced. The early varieties were from four to six weeks late in flowering, but the mid-season and late flowering camellias were much less affected in this regard.

The reticulatas, I think, were if anything better than average—'Crimson Robe' produced flowers of 7¼ inches in diameter, 'Captain Rawes' as usual set buds in groups of twos and threes, and in all some four hundred and fifty buds were removed, leaving only one to each terminal. 'Willow Wand', which previously had been grown in a fairly open position, and was subject to considerable leaf variegation, particularly in alternate growth cycles, had been moved to the shade house, where it produced its best flowers to date, up to 5¾ inches in diameter and 4 inches high. Since growing in the shade house, the foliage variegation has diminished considerably with a corresponding increase in leaf size.

This spring, which was the alternate season to produce leaf variegation, has been very pleasing inasmuch as the leaves have again increased in size, and variegation has been confined to small patches on only a few leaves. Part of the answer to the variegation problem with this camellia in our climate may well be the provision of considerably more shade than usual.

Rhododendrons were not so well able to resist the trying conditions. I am sure that the ban on the use of garden hoses had a far more reaching effect than it would have first appeared—although many plants were perhaps fairly adequately watered by bucket

and watering can, the ban on the use of hoses prevented overhead sprinkling of foliage, usually done after sunset, which can be so beneficial in extremely dry weather, and the fact that lawns could not be watered by any means further added to the dryness of the atmosphere.

Going back to February 1965, we had three successive days of high temperatures, 108, 109, and 110° F, when rhododendrons only suffered minor leaf burn, however, at this time there were no restrictions on the use of water, and the overhead sprinkling of foliage and watering of gardens and lawns generally, was sufficient at least in some measure, to increase the local relative humidity and tide rhododendrons over the heat waves, usually lasting three or four days at a time.

A number of rhododendrons which, to all appearances had survived the drought, succumbed in the spring, when the energy to produce flowers and new growth was apparently more than the weakened root systems could stand. Perhaps drastic disbudding or pruning may have saved some plants.

Hybrids having *griersonianum* in their make up seemed to be particularly prone to leaf burn, even when given considerable shade.

In our garden, 'Matador', 'Ibex', 'May Day', 'Elizabeth' and 'Tally Ho', all growing in the shade house, even with the additional protection given by thickening the laths on top, and hessian on the western side, still suffered considerable damage.

With 'Matador' and 'Ibex' the new growth did not even get away; it was seared off as soon as it appeared, and neither of these plants set even one flower bud. They did, however, in the following spring, produce normal new growth.

Two plants of 'May Day' did not fare quite so badly—the new growth got away and something like the usual number of flower buds set; however, about 60 per cent of these browned and eventually had to be removed.

'Tally Ho' produced normal new growth, but only about 10 per cent of the usual number of buds were formed, whilst the new leaves were considerably smaller than usual.

'Elizabeth', perhaps more favourably sited against the west wall which had been given additional protection with hessian, suffered no leaf burn, but set only about 30 per cent of its normal quantity of flower buds.

'Damozel' proved to be the exception in the *griersonianum* hybrids—sited in a position in close proximity and similar in all

respects to 'Elizabeth' and 'Tally Ho', it suffered no leaf burn whatever, produced healthy deep green leaves, and without exception, a flower bud on every terminal.

Other hybrids, 'Alice', 'Jan Dekens', 'Topsvoort Pearl', 'Kluis Sensation' and 'Hugh Koster', to mention a few, given some protection from afternoon sun and heavy mulching with pine needles, showed little signs of the trying conditions, and all set approximately their normal quota of flower buds. 'Blue Peter' in a similar position set a heavy crop of buds, and made a particularly fine display in the spring, whilst 'Van Nes Sensation', somewhat unfavourably sited where it received hours of afternoon sun, suffered some leaf burn and a small percentage of browned buds, which was not unexpected, however, in the spring, new growth vigorously moved from these points, and the flowers, in quantity, somewhat less than normal, were almost up to the standard of other years.

Two plants of 'Blue Diamond', one in the shade house where it received morning sun, and one in a large container in close proximity to the house, where it was in direct sunlight for probably only an hour or two each day, were not damaged in any way, and produced in the following spring their best display of flowers to date, the one in the shade house which received the most sun set the most flowers.

Also in the shade house, *polyandrum*, *ciliicalyx* and *veitchianum* suffered no damage, but the flowers in the spring were in quantity only a little over 50 per cent of normal, whilst *davidsonianum*, which received protection from late afternoon sun only, set the usual number of flower buds and proved to be one of the hardiest rhododendrons in our garden—not one bud was lost, nor did it suffer any leaf burn.

It was quite noticeable in larger gardens in outer suburbs, and in particular those in the foot hills in close proximity to the Dandenongs (where the same water restrictions applied), that where reasonable shade and mulching were provided, and wider spacing between plants allowed free circulation of air, much less damage occurred—this was particularly evident with *griersonianum* hybrids, where in one garden 'Matador' was quite unscathed and an F.C.C. form of 'Elizabeth' made a magnificent display in the spring.

Visits to many gardens and nurseries in the winter and spring following the drought revealed that losses overall were fairly heavy, but plants which survived in one garden could be severely

damaged, or even die in another in reasonably close proximity, and under fairly similar conditions.

It was apparent that provision of some extra shade and heavy mulching played a significant part in saving many rhododendrons which otherwise would have surely perished. Further, the amount of water available for any one plant was governed by the capacity of the individual to carry water by bucket and watering can, and for this reason it did not seem an appropriate time to try and make an assessment of sun and drought hardiness—this could best be done in a test garden where all rhododendrons were subject to similar climatic conditions.

Many conifers which were severely burned during the drought did not recover, magnolias generally suffered little damage, whilst most deciduous trees such as Liquidambars, Tulip Trees, Claret Ash, and *Quercus palustris* were prematurely defoliated, but recovered in the following spring, however, many Silver Birches which were partially defoliated, suffered loss of the top new branches, which unfortunately has spoiled their graceful shape.

It was not a pleasant experience to see valuable trees and shrubs being decimated in this manner, and it is hoped that measures will be promptly taken to increase the size of reservoirs, so a repetition of water restrictions of such severity will not occur again.

CAMELLIAS SEEN ON THE INTERNATIONAL DENDROLOGICAL SOCIETY'S TOUR OF GUERNSEY, JERSEY AND BRITTANY—APRIL, 1969

By Mrs. VIOLET LORT-PHILLIPS

THE first recorded delivery of camellias into Guernsey was by Smith of the Caledonia Nurseries, grandfather of the present owner, Mr. de Putron, to whom I am indebted for this information, who imported three consignments from Van Houtte's of Belgium, the first in 1887. These were seedling *Camellia japonica*, which he named as: *C. japonica* 'Lady Clare', 'Lady Marion', 'Lady Vansittart' and 'Lady Vere'.

In addition, there were listed: *C. japonica* 'Lady Cordelia'—which was sold to someone called Cutbush, and lost; 'Lady Crutwell' sold to Lady de Saumarez in 1896; 'Lady Jane'; 'Lady Lascelles', 'Lady Lynne' both listed without their colour as doubles, and 'Lady Margaret'.

In 1898, he imported *C. japonica* 'Nagasaki' with, in 1899 a further importation, only four of which survived. He had also acquired 'Tricolor' (Sieboldii)—introduced by the Baron Siebold from Japan to Germany in 1832. Smith grafted a red sport of 'Tricolor' which he called 'Lady de Saumarez'. These formed the nucleus of camellias grown in the Islands. As I do not want to become too repetitive, I will, on occasions, use the term "old camellia", which will invoke, I hope, the holly-like glossy leaves of *C.* 'Tricolor' and its sports.

I must stress that the I.D.S. Tour was not organised to show camellias at their best. Members of the Society had spent March 1968 visiting north-west Spain and Portugal, under the able direction and organisation of the Marquesa de Casa Valdes. There we were fortunate to see camellias growing under ideal conditions and older and more varied than we can produce in the Channel Islands.

We began the tour in Guernsey on April 16th. For those readers not conversant with the Channel Islands, I must digress to tell

them that Guernsey is one of the islands, of volcanic origin, stretching from the Cherbourg Peninsular in the north, some 20 miles from the coast of France. It is approximately 8 miles by 5, and divided into eleven parishes, with glass houses covering 1,000 acres—tomatoes and carnation are, with potatoes, the main crop. We visited several of the old Manor Houses in both Islands. The Island Government was feudal for centuries. With the exception of the unique Island of Sark, the home of Dame Sybil Hathaway, O.B.E., which has been feudal since 1565—the privileges have ceased though the title of Seigneur remains.

We were a party of thirty-five members, with our courier, Miss Gough, who broke all records by getting the dendrologists on time for their scheduled visits. We started off in our bus at 9.15 and drove through the narrow, winding streets of St. Peter Port, passing gardens in which bloomed old camellias, *Magnolia soulangeana* and *M. stellata*.

Our first call was to Saumarez Manor—the home of Mr. Cecil de Saumarez. This fine manor house had been added to during the centuries—there were still traces of the old fifteenth-century manor —the latest addition was made by Sir George de Saumarez in 1873, when extensive planting was made and the woodland developed.

The orange-red blossoms of *C. japonica* 'Kelvingtoniana', with its glossy tough foliage, grew near the granite house; there were several large bushes of our friends, the Ladies Vansittart, de Saumarez and, on the lawn, *C. japonica* 'Lady Clare' and 'Donckelarii'. The pride of the garden, and rightly so, were the trees—as Mr. de Saumarez told us, the Islanders are modest about their trees, the rate of growth, girth and height does not compare with the mainland and Europe, possibly due to the lack of lime and, more likely, because of wind. Nevertheless, at Saumarez, we were shown some very fine *Quercus hispanica* reputed to be two hundred and fifty years old; a magnificent *Davidia involucrata* that the gardener, Mr. Carre, remembers planting thirty years ago, only rivalled by the *Drimys winteri* he had planted as a young man ten years before the Davidia. *Prunus* 'Shirotae' ('Mount Fuji') was making a brave show on the lawn. If our first garden was typical of the traditional type of old mature garden, our next visit was, in contrast, to one comparatively new.

Dolphins on the east coast, is the home of Mrs. Mackay, and was built in 1937 by the author and philatelist, Dr. Byam. The garden is on three levels; from the Terrace there is a panoramic view of the Islands with Sark and Jersey in the distance. Dolphins

is approached by a sunken drive bordered by rhododendrons and flowering cherries. This is dominated by a splendid *Prunus* 'Taihaku'—one of my happiest memories is of that indomitable dendrologist Captain Collingwood Ingram holding court under the dazzling canopy of blossom, whilst we paid homage to his "Cherry", and saluted our senior member who had introduced this plant to Europe.

The garden has been skilfully planned and maintained to provide the maximum shelter from the cutting winds. The pine needles from *Pinus radiata* were used to fill a double row of wire netting along the boundary fence between the headland and the sea. Round every corner there was a new vista—groups of *Pieris formosa* and *japonica*, heavy with their Lily of the Valley flowers—primulas and hostas by the little stream—*Skimmia reevesiana* (*fortunei*) and *S.* 'Foremanii', and *Cornus capitata*—a collection of leptospermum, red, white and rose, with *Pittosporum tobira*, with the orange scented flowers.

Down the central mixed border, backed by gold yews, grew *Camellia japonica* 'Nobilissima', *C.* 'Gloire de Nantes', *C.* 'de la Reine' and *C.* 'Pauline Guidard', this latter camellia I have not been able to find in any list. It could be a sport of 'Mathotiana' Only one large bush of a single white 'Alba Simplex' showed scorch—this was growing near the perimeter of the garden to remind one of the wind hazards so successfully overcome by skilful placing.

On leaving Dolphins, we paused at Le Vallon, and were greeted by Mrs. Firbanks who showed us the pretty valley running down to the sea. We saluted some sturdy plants of *C.* 'Lady de Saumarez' and 'Lady Vansittart' in flower by the front door, and drove inland to Forest belonging to Mr. Roberts. This garden is a veritable Alladin's Cave of botanical treasures. A complete list would be too long, and I must hurry on past *Eucryphia* 'Rostrevor' and 'Nymansay', noting the *Euonymus fimbriata*, saluting *C.* 'Lady Clare' and 'Donckelarii', until I reach the lovely group of "old camellias" by the back door. Unfortunately, Mr. Roberts did not know the names of them, nor could Mr. de Putron nor Mr. Harold Hillier help, though it was rare that one appealed to them in vain.

After lunch, we visited an interesting plantation of pines at Cobo—these were collected by the late Lord de Saumarez, a former Ambassador to Japan, who was responsible for introducing many Japanese trees and shrubs to the Islands. Then, on

to Candie Gardens in St. Peter Port, run by the States of Guernsey. This was planted in 1897 by Mr. Green of Kew and Mr. Lloyd de Putron. At the entrance stands a statue of the nineteenth century French author, Victor Hugo, who spent fifteen years exile in Guernsey, and who christened the Islands "The Aegean of the Channel". We entered through an archway of *C.* 'Tricolor' and Chandler's *C.* 'Elegans' into a sub-tropical garden, running down a cleft in the rock, and were greeted by the Superintendent of the Parks and Gardens, Mr. Le Patourel.

Along one side there is a granite wall with, amongst other shrubs, the soft rose-red flowers of *C.* 'Latifolia' with, further on, *C.* 'Kelvingtoniana'. We passed a fine *Magnolia kobus* and speculated on the name of the formal double white camellia with the fimbriated petals. Later research has made me think it could be 'Alba Splendens'—as it had vigorous upright growth, and I see this was introduced to the U.S.A. from Europe in the 1800's, though this is purely conjecture and I had not the leaves to compare. It could well be 'Alba Plena Fimbriata'. *Cestrum roseum* and *Acacia baileyana* grew happily just above a fine *C. reticulata* 'Captain Rawes'. There was a 60-foot *M. grandiflora* on the lawn.

We ended our first day at Rozel, where the Dowager Viscountess Wimborne received us—Lady Wimborne showed us how she is re-making an old garden, planting *Embothrium lanceolatum*, Trewithen's *Ceanothus arboreus* 'Trewithen', *M. sieboldii* and *campbellii*. The old Camellia Ladies were well represented in good groups by the house; newer varieties, including *sasanqua* 'Apple Blossom' are being planted. In the house, we were met by a lovely bowl of white camellia with wavy petals. This was, I think, *C.* 'Imbricata Alba'.

The next morning we drove to Saumarez Park, once the seat of Admiral Lord de Saumarez, who was second in command to Lord Nelson at the Battle of the Nile, and is now an Old People's Home. The old manor house was replaced by a castellated Gothic mansion. The gardens are maintained by the States—Mr. Le Patourel showed us round. There are many fine trees which make a good background to what is rather a flat terrain. Outstanding were two Ilex, clipped into the shape of towers. Near a clump of bamboo *Phyllostachys heterocladon* with the handsome black canes, grew the clear pink single *C. japonica* 'Takayama', and *C. japonica* 'Nobilissima'. As was fitting, *C.* 'Tricolor' was making a good show —also the Ladies Vansittart, pink and red de Saumarez, and 'Lady Marion' rose-pink peony form. The *sasanqua* camellia 'Apple

Blossom' and 'Narumi-Gata' grew near the house, with a sasanqua labelled 'Beauty of Guernsey' which unfortunately, were not in flower. Saying goodbye to Mr. Le Patourel, we continued on to Caledonia Nurseries, where Mr. de Putron conducted the party into the gardens; just inside, stands a 15-foot bush of *C. japonica* 'Adelina Patti', the cup-shaped pink flowers shading to white; nearby the pure white 'Alba Simplex'.

The fringed branches of *Podocarpus chilensis* frame a group that includes the *Rhododendrons* 'Lady Rosebery' and 'Lady Chamberlain'—beyond there is another fine bush of *C. japonica* 'Lady Marion'—continuing round the gardens eschewing a digression with Mr. de Putron's collection of bamboos—the clear red flowers of *C. japonica* 'Kimberley' comes into view. Mention must be made of the pretty snowflake flowers of *C. cuspidata*, *C. japonica* 'Gauntletti' with the pear-shaped leaves, the fish-tailed leaves of *C.* 'Kingyo-Tsubaki' and the blush pink dark flecked flower of *C.* 'Marguerite Gouillon'. I have not recited all the names of camellias in this collection but have, I hope, whetted the curiosity of Camelliaphiles. Amongst other rare plants and trees seen at the Caledonia Nurseries was a magnificent *M. veitchii.*

The tour in Guernsey ended with a visit to Cedar Hill, the home of Mr. and Mrs. McGlasan. This was once the garden of the designer of "Dolphins", Dr. Byam. At the end of the main terrace were two of the largest and oldest *C. japonica* that we saw in Guernsey, 'Donckelarii' had almost fused trunk and branches with 'Elegans'. *C.* 'J. C. Williams' carpetted the path with pale pink blossoms by the front door.

Soon we were in the air, looking down on the pattern of Islands, the white shell beeches of Herm; Sark like a "Lion Couchant" and tiny Jethou, where a white pimpernel and a yellow forget-me-not grow.

Ahead lay Jersey.

JERSEY

Jersey is the largest Island of the group, measuring 10 miles from east to west and 6 miles from south to north. It is a microcosm of soil conditions, light and sandy in parts of the north and west, heavier in the centre, with dark friable earth in the east. The twelve parishes are generally named after local Saints. Jersey, too, has seigneurs and a feudal past, a different patois is still spoken on the Island, the laws are in Norman French. Underneath the glittering face presented by tourism, the old country life remains, including

a belief in witches, white and black. Today, a tractor or winch pulls the plough up the steep côtils, or terraced hills; in the past, even ten years ago, this work was often done by a husband and wife.

The Island was prosperous in the mid-nineteenth century—many "country" houses were built or enlarged, with good gardens planted with camellias. I had to be firm in choosing our programme. This brief description cannot give a true picture of the abundance of interesting trees and shrubs and flowers to be found in Jersey. The Island slopes slightly to the south, the flowering period is at least a month to six weeks ahead of the Mainland.

Noirmont Manor, the home of Major and Mrs. Dixon, was our first call on arrival in Jersey late in the evening of Friday 18th. We admired the very fine Cycas Palm in the forecourt of the house (some eminent dendrologists were heard to mutter "Jubea"). As we made our way onto the lawn, passing *Magnolia* 'Brozzoni', to reach a camellia walk leading to the sea. Notable amongst old favourites were 'Mathotiana Alba' and 'Mathotiana Rosea', the large formal white flowers sometimes lightly tinged with pink, *C.* 'Preston Rose' near *C.* 'Adolphe Audusson', with 'Gauntletti' and *C. reticulata* 'Captain Rawes'. Major Dixon showed us how the Arbutus had established itself and were growing only a few feet from the tide on the foreshore overlooking St. Aubins Bay, also the loopholes in the garden walls, made for defence against invasion during the Napoleonic Wars, that were used by the Germans during the last War's occupation as machine gun emplacements.

The Howard Davies Park was first on our list for Saturday morning 19th. Mr. Ruellan, the Superintendent of the Parks and Gardens, greeted us at the entrance which was a blaze of tulips and hybrid Polyantha. He told us that the Park was presented to the States by Mr. and Mrs. Davies as a memorial to their son, killed in the 1914–18 War.

The members were impressed by the variety and quality of the trees and shrubs shown. I learnt later from Mr. Lovett, who had laid out and planted the gardens, of which a small part had been opened in 1939, of the difficulties that had been overcome during the war years. Apart from one two hundred and fifty-year-old sweet chestnut and a couple of Mediterranean pines, all the trees were grown from seeds or propagated from island stock. Treseders had supplied one consignment of camellias in 1939, but the many *C. japonica* growing along the shady boundaries came from stock of Samares Manor and other gardens. Near the Memorial Hall to Howard Davies there is a good bush of 'Yuki-Botan' with a

camellia marked "Hirjii", which I did not know. The Caledonia Nursery Camellia "Ladies" are represented, and there are several seedlings of *C. japonica*. I was told that the sturdy *C.* 'Comte de Gomer' had been moved on a hand cart from a country garden during the War. The rock garden too had been built during the last year of the War, when the islanders were hungry, the stones carried by hand from a dike half a mile away, some of the large rocks taking all day. It speaks much for the courage and vision of those gardeners that we enjoy this lovely park today with its superb rose gardens, hot houses (each lady was given an orchid), and its fine display of flowering trees and shrubs. Later, Mr. Ruellan took us to the Churchill Memorial Gardens near the sea in St. Brelades Bay. This estate was bought three or four years ago. There is a mixed wood that slopes south—*Cupressus macrocarpa*, *Pinus radiata* and some Beech, with a waterfall leading down to a formal rose garden containing a plaque to Sir Winston Churchill. The members were so impressed by the scope offered by this new park that they collected a donation, which they gave to the States towards their planting programme; I shall put in a word for camellia!

Next, we visited La Hague Manor driving through the unspoilt St. Peter's Valley, and were able to see how much our host, Colonel Rupert Dawson, had achieved with his re-afforestation, that includes a collection of Salix and groups of various Eucalyptus with *Phormium tenax*. The "old camellias" were growing well and happily, and I noted a tall *Rhododendron arboreum*. It was with difficulty that we extricated members from this valley garden to continue our tour to Clos des Pins. Dr. and Mrs. Owen Taylor's enchanting small garden was made in the last thirty years or so; it faces south with a panoramic view of St. Aubins Bay, Elizabeth Castle, below. The first to greet camellia lovers was the large semi-double pink of 'Lady Clare', the creamy white *C.* 'Nobilissima' grew near a fine *Cercis siliquastrum*—the blue of *Ceanothus rigidus* accentuating the flow of *Camellia* 'Adolphe Audusson'; in the long border, there is a large paeony-form dark red *C. japonica*, which I believe may be *C.* 'Blackburniana'. This has the habit of flowering back to back, making a double flower. Further on a large and floriferous *C. reticulata* 'Captain Rawes' was underplanted with groups of blue Camassia. Again, this garden has been cleverly planned to give maximum protection from the winds, with points accentuated by the spear-like leaves of the Yucca on a corner, *Cedrus atlantica* 'Glauca' on the central lawn.

After lunch, we drove through the country lanes to Trinity Manor. The grandfather of the present Seigneur of the Fief de Trinity re-built the old manor in the French style in 1910, and laid out a remarkable garden of sub-tropical plants and shrubs between 1910 and 1913. We were shown round by the single-handed gardener, Mr. Fred Mellon. The main group of camellias are to the side of the lawn in the West Hemicycle Garden. They are big bushes of the old familiar varieties—a very tall 'Lady Vansittart', red was overshadowed by the staggering clear scarlet of a *C. japonica* with pointed leaves and flatter semi-double flowers, no stamens visible. Next to a plant of *Vaccinium ovatum*, the interesting pale pink formal rose flower of another old bush, that was not unlike 'Frau Minna Seidel' except that it had a creamy line running down the centre of the imbricated petals. This variation intrigued Mr. Harold Hillier. I felt mollified that I had not been able to name some of these varieties when the experts were also stumped. In the Chapel Garden, mention must be made of a very tall, almost fastigated, tree of *C.* 'Nobilissima' with a companion *C.* 'Nobilissima' that had broken halfway up and was sprouting again; *C.* 'Lady Clare', the inevitable *reticulata* 'Captain Rawes' and *C.* 'Donckelarii', also a very floriferous *C.* 'Elegans' by the entrance.

We ended our first day's tour at Rozel Manor, the home of Brigadier and Mrs. Lempriere Robin, Seigneur de Rozel. The present house was built in 1770 by Charles Lempriere Robin, with additions added in 1820—the original manor house, now a farm, stood behind the twelfth-century chapel at the head of a valley running south, with lawns sloping down to the first of two small lakes. The main gardens are sheltered by wood and some old walls. To the right of the chapel, there are several large old camellia trees—'Lady de Saumarez', red and white forms intermingling.

Looking back at the chapel from the second lake, a picture framed by a one hundred-years-old specimen of *Taxodium distichum*, possibly one of the largest in the British Isles, there is mirrored in the first lake *C. reticulata* ('Captain Rawes'), the formal double dark-red *C. japonica* 'Margherita Coleoni' in the foreground, with the sturdy *C.* 'Adolphe Audusson'. To the right, there is 'Lady Vansittarts' hose in hose with, in between, some semi-double flowers of rose-pink and white of an old unnamed formal camellia near *C. japonica* 'Elegans'.

I noted *Rhododendron forrestii* var. *repens* scarlet bells on a bank. Rozel is one of the gardens with abundant water, where rhododendron species flourish. These are grown down the valley.

On a bank above the New Zealand tree fern, there is a *C. saluenensis*, its arching branches still a mass of rose-pink flower. Nearby, a *Paulownia lilacina* completes the picture. Down the drive, there are new plantings of camellia seedlings, including a *saluenensis*, which was an unusual deep pink.

Samares Manor was the first garden that we visited on Sunday, Samares is the home of Mrs. Obbard, whose first husband, Sir James Knott, bought it in 1924. Sir James employed a landscape architect to lay out the gardens, meadows were drained, earth brought from every parish of the Island, and two shiploads of limestone from north-west England; trees and shrubs from all over Europe were planted. *C.* 'Lady Vansittart' greets one by the lodge —a 20 foot tall *C.* 'Fred Sander', one of the many sports of the prolific *C.* 'Tricolor', half fills an oblong bed at the sweep of the lawn; next, *C.* 'Magnoliaeflora' with *C.* 'Donckelarii's' crimson and white. Under the light shade of beech trees near the Colombier there is a more recent planting of camellias, including 'Barbara Hillier', 'Mary Christian' and 'November Pink'. The gardens used to employ twenty-five men, now there are four, the result is a tribute to the work and ingenuity of Mrs. Obbard and her staff. There are ninety different kinds of *C. japonica*, other varieties and species grown at Samares, many of which line the Lady Walk to the left of the house.

We lunched at our home, La Colline, which is sited facing south on a hill with a view of the sea. We acquired the property in 1957; the house had been empty for three years. There were some old bushes *C.* 'Elegans', 'Madame Le Bois' and 'Alba Plena' on the terraces or côtils, as they are called in Jersey. To these, we have added 'J. C. Williams'. They, with a *Nandina domestica*, seem to enjoy the dry conditions of these côtils. Lower down, we have a camellia border which has been made from cuttings taken in July, 1959, of 'Donation', 'Magnoliaeflora', 'Adolphe Audusson', etc. We built a lathe house on the lines of those I saw in Japan, using wooden trellis instead of bamboo, which house some of our collection during the winter. *C.* 'Magnoliaeflora' blooms well but loses colour compared to the outdoor plant. We find 'Leonard Messel' is a satisfactory pot plant. We bring pots into the house for short periods. The New Zealand cultivars given me by Col. T. Durrant do not like the indoor atmosphere. 'Crinckles' and 'E. G. Waterhouse' drop their flowers in a day or two, whereas the × *williamsii* and tough 'Elegans' do not object. Once started, I could fill this article with the trials and tribulations of my camellia collecting

and propagating, that have strained the patience of my husband and our gardener, Mr. A. Bint. Suffice it to say that the Japanese seeds picked in Mr. Adachi's Tokyo garden in 1962 flourish in the middle côtil garden. The gift of scions from Mr. Satomi of nomenclature fame, of the Higo *Camellia japonica* 'Kyomski' and *sasanqua* 'Momozono', with the shell pink single flower, are happy plants. Whereas the Snow Camellias given to me by Professor Hagya of the University of Niigata in 1962, have proved disappointing. I was too optimistic in thinking that they would make good ground cover and be self-layering on our côtils as they are on their native hills; our climate is too mild and we lack the snow and underground springs of Northern Japan.

La Chaire.

The gardens at La Chaire are set in and on the side of a sheltered valley running inland from Rozel. They were originally planted by Samuel Curtis, the cousin of William Curtis of the *Botanical Magazine*, who married Samuel Curtis' daughter. The Curtis' built a house at La Chaire in 1841. La Chaire (the pulpit) is a rare conglomerate rock of volcanic origin. Mr. Curtis planted windbreaks and, during the next five years, introduced many rare trees and shrubs. Their daughter married Samuel Fothergill, the botanist, and continued to live at La Chaire and planted what was called "The Famous Tropical Gardens", which flourished until the disastrous frost of 1895 destroyed most of Curtis' work. The glory of the garden is a magnificent *Magnolia campbellii* of superb deep rose colour. The task of the dendrologist was to try to determine whether it was planted before the great frost and survived, or after. It is known that *M. campbellii* was introduced into Europe in 1868. Mr. Arthur Hellyer led one exploring party to the top of the cliff garden, where Mr. Harold Hillier discovered one of the biggest *Eucryphia cordifolia* he had ever seen. His cries brought the intrepid Captain Collingwood racing up after him. There are also some interesting magnolias and rhododendrons planted by Mr. Raffill of Kew during the 1930's for the then owners Mr. and Mrs. Arthur Nicolle. Unfortunately, many of the best rhododendrons were sent to Hamburg during the German occupation.

The less adventuresome members took a more sober route to the Gardens of La Rive, which belong to Major and Mrs. Sinclair —and waited in the sunshine by a stream in a charming glade with some fine old camellia bushes—need I say, *C. japonica* 'Tricolor', etc. and a beautiful *Photinia serrulata*—whilst the hills rang with the cries of excited dendrologists. The tour ended with Radier

Manor. We drove back from Rozel by the coast down an avenue of *Pinus radiata*. Unfortunately, the afternoon was misty, so the coast of France could not be seen. Radier Manor is the home of the Earl and Countess of Jersey, since 1947. The house was used as a German Headquarters, and the gardens had been "let go" —the main lawn was a field—the planting is, therefore, less than twenty years old. The main valley looks west, and gets the full force of the prevailing south-west wind; care has been taken to use the natural contours of the land, from the terrace one sees sloping lawn to the lake and looks along green field to a distant view of St. Helier with Elizabeth Castle, sea-girt in St. Aubins Bay. There were three old *C.* 'Latifolia' on the front lawn, 'Lavinia Maggi' in the walled garden and 'Donckelarii' towards the swimming pool. In 1954, an avenue of camellias was planted. It is placed along a gentle slope facing north. Lightly shaded by a double row of Silver Birch it includes very fine *C.* 'Donation', a delicious pyramid of pink, *C.* 'Juno', 'Mercury', 'Jupiter', representing the Gods— 'Gauntletti', 'White Swan' with lovely gold anthers whose flowers are almost concealed within the foliage. 'Lady Clare' sprawls at the bottom of the slope—near *C.* 'Nobilissima', with 'Inspiration' and 'Salutation'.

Lord Jersey has recently planted a bank to the right of the lake with a collection of Reticulatas and Sasanquas, also *C. oleifera* × *vernalis*—and 'J. C. Williams' and this year, the back drive has been planted with camellias taken from his seedlings or cuttings from his own stock.

Conclusion—I hope that this account of the I.D.S. visit to the Channel Islands will inspire other camellia enthusiasts to visit the Islands. For lovers of this genus there is a lot to see. Many old houses and farm gardens have their old favourites. New varieties are being planted. The climate lacks the humidity to make ideal growing conditions for rhododendrons; here, they require annual feeding to prevent leggy growth and water in a dry summer—the rainfall is almost the same as Cornwall—but camellias, once established, are resistant, good tempered and beautiful.

BRITTANY

We reached St. Brieuc on the evening of the 21st. I could relax, the responsibility for the remainder of the tour devolved on to another I.D.S. member, Madame Rodocanachi, who, with her cousin the Comte de Rohan Chabot, accompanied us and showed us Brittany.

I must telescope the tour of five days, picking out the gardens in which I particularly noticed camellias. I hope that I will be forgiven if I have omitted any. Space will not permit me to do justice to everything we were shown—our days began early, in the bus by 9 a.m., and often finished late. Our programme was full, our hosts hospitable. The weather that had been good to us in the Islands, made up for it on our first day in the Côtes du Nord. We arrived at Kerdalo in Tredanzec, the home of one of our members, Prince Wolkonsky—the rain began, accompanied by a gale force wind. Nonetheless, the undaunted I.D.S. members, clad in rubber boots and mackintoshes, sallied forth into the storm to see a remarkable garden in the making. A series of lakes led down from the house through a wooded valley to the river. Prince Wolkonsky told us that he had a bulldozer working for six months clearing the ground. He had planted shelter belts, and had exploited the natural woodland of beech, silver birch and oak, making groves of species rhododendrons, *Pieris* and maple—it was the perfect setting for camellias which were growing among the trees and along the back of the drive leading to the river, including 'Adolphe Audusson', 'Gloire de Nantes', 'Donation', 'Barbara Hillier' and several sasanquas, also *reticulata* 'Semi Plena' to join his collection of 'Chang's Temple', 'Purple Gown' and 'Captain Rawes' from a French source.

Kerdalo reminded me of the Savill Garden, or it would be correct to say that Prince Wolkonsky's imaginative use of the contours of his valley, with the addition of retaining walls and water, evoked the Windsor gardens as they were thirty or more years ago. In the future, I think many horticulturists will be making their annual pilgrimage to Kerdalo in the Spring, for Brittany has much to offer the dendrologist.

At Le Kestellec, where we lunched by invitation of the Comte and Comtess de Keroüartz, there were some old shrubs of *Camellia* 'Alba Simplex', and excellent 'Contessa Lavinia Maggi', with some other formal pink and red that I could not name. The garden and château were on a corner looking down the river, with breathtaking views.

At Kerming en Resporden, the home of the Comte and Comtess de Pluvie, the next day, camellia trees were growing on the lawn, which could have been amongst some of the first to be introduced into France. Old and familiar camellias were at hand; the twisted leaf of 'Tricolor' and all, or nearly all, the sports were present—pink, red and 'Fred Sander'. There was a big bush of rose and white

and red splashed paeony-form flower, which I thought could be the old *C. japonica* 'Versicolor' that I found illustrated in Van Houttes' book, published 1814, in the library at Kerminey. It had the same habit and, more important, the cuneate leaves resembled the drawing. Later research made me wonder if it was *C.* 'Marguerite Gouillon' which has pink flecks and stripes of red. This was introduced in France by Drouard in 1850. We spent the night at the Château (Hotel) Manoir du Stang. Unfortunately, we arrived too late to see the garden and I could only make a quick inspection of the interesting collection of camellias before the coach left in the morning. The dining room table had been beautifully decorated with camellia flowers. I was captivated by a large semi-double paeony-flowered deep rose camellia, which resembled, at first glance, a Reticulata but for the leaves which were ovate, tough and shiny.

The Comte de Kerguelen who was our host the next day at his Pepinieres at L'Aven, told me that this was a cross between *C. japonica* 'Donckelarii' and *C. japonica* 'Eugene Lize'. It certainly had hybrid vigour and was a showy and beautiful flower without the variation and white splashes present in both parents. Unfortunately, it did not seem to be named, perhaps one of my readers could supply this. At L'Aven, too, Comte de Kerguelen had success with leaf cuttings of *C. japonica* in the open under a light shade of pine trees, taken in the autumn and treated with a hormone powder. There did not seem to be any sign of wind scorch in his larger bushes, and in Brittany generally little sign of virus disease and leaching of the leaves. The only case that I noted was at the Arboretum de Kerangat, Mr. and Mrs. Hunt's park, where there was, amongst other interesting trees, a group of four *Cedrus atlantica* 'Pendula'; Mrs. Hunt showed me an old *Camellia* 'Alba Plena' that suffered severe damage from lightning, the leaves were discoloured, nearby those old favourites 'Adolphe Audusson' and 'Tricolor' were in the best of health.

We visited Perennou en Plomelin, the property of the Marquise de Broc, where there was one of the biggest *Rhododendron arboreum* mirrored in a pool near the river, and I found a group of old camellia trees quite 20 feet high growing above a neolithic Dolman. I should have passed by, had not a gust of wind sent some petals swirling down, they were pink and white *C. japonica* and possibly 'Alba Simplex' and 'Lady Mackinnon', that had gone wild.

One of the highlights of our tour was the visit to Josselin—we were welcomed by Madame Rodoconachis' son, the Duc de Rohan,

and entertained to tea. The Castle, where the Duc received us, is one of the most perfect examples of mediaeval architecture, and superbly placed above the river and the town. Under the bank of the grassed moat, I was happy to find the salmon-pink, paeony-form *C. japonica* so correctly named 'Duchesse de Rohan'—or, as we know it, 'Preston Rose', which originated from the Caledonia Nurseries in 1874.

Our last morning was spent in the Botanical Gardens, Le Jardin Thabor, of Rennes, where we were greeted by the Director, Monsieur Le Pechou. This garden was full of interest. There were several well-grown camellias, including 'Donckelarii', 'Elegans', and 'Gauntletti', 'Imbricata Alba', and a *reticulata* 'Semi Plena'.

It was with regret that we said farewell to our guides. We could have spent another week at least exploring the beautiful country. Climatically, it would seem ideal for the growing of camellias, the old varieties have proved their toughness and vigour, and are naturalising themselves in the woods. I am sure, in the future, gardeners will mark the Channel Islands and Brittany as places not to be missed in their quest of "Camellia Serendipity".

THE RHODODENDRON SHOW APRIL 29–30, 1969

By ALAN HARDY and PATRICK M. SYNGE

OF all difficult and disappointing years for rhododendrons in April this must surely rank among the worst, nevertheless, the whole of the New Hall, and it is no mean size, was comfortably filled with rhododendrons and azaleas and a magnificent display of colour it was. Obviously the majority of trade exhibitors cannot afford to take risks with the weather and so lift their plants early and open the buds under some protection. They are masters of the intricate timing and care involved and visitors certainly had cause to be grateful this year. Probably the highlights of the Show were to be found mainly among their stands, the little gems of 'Chikor' and 'Sapphire' among the dwarfs on Hillier's stand that met one on entering, the great billowing mass of the pale yellow azalea 'Lapwing' in the centre of the Knaphill nurseries stand, the striking mass of the contrasting colours of

'Mrs. G. W. Leak' on Waterer's stand, a superb plant of the lovely little creamy *carolinianum* on the Hydon Nurseries stand and finally, as *piéce de resistance*, the superb plant of *Rhododendron taggianum* in full flower from the National Trust for Scotland at Brodick Castle, as well as vases of Mr. J. S. Basford's lovely new tender hybrids raised there and which he has been too modest to name. Among the species classes perhaps the very varying trusses of the crimson and pale pink forms of *arizelum* were outstanding, while among the hybrids the eight shown from Exbury to win for Mr. E. de Rothschild first prize in Class 61 can seldom have been surpassed for quality.

Two Gold Medals were given; one to Messrs. John Waterer, Sons and Crisp, who again won the Rothschild Challenge Cup, the other to Messrs. W. C. Slocock who had a large and very colourful exhibit at the end of the hall under the clock.

As one entered, Hillier's stand immediately attracted attention. It was low and as befitted the needs of small gardens contained numbers of dwarf rhododendrons, nearly all in flower and giving a beautiful effect of an undulating carpet of colour. Among them we particularly noted a few plants of the dwarf yellow 'Chikor' raised by Mr. E. H. M. Cox and his son Peter Cox at Glendoick, a plant which has rightly received much commendation in the last year or two. This contrasted with the slightly taller growing 'Sapphire', one of the most lovely of the pale mauve rhododendrons raised by Mr. F. P. Knight when he was at Knaphill; in front of this was a group of little pink mounds of the delightful 'Gigha' form of *R. calostrotum*, rather lighter and brighter in its pink than the more usual crimson form. Under the spring foliage of a birch was a fine plant of the "Persil" white *hyperythrum*, the purest white of all rhododendrons contrasted sharply but well with the bright scarlet crimson 'Elizabeth'. Also good in the group were deep pink forms of *spiciferum*, a lovely pink *davidsonianum*, a deep pink *racemosum* of distinction, and the rather rare pale blue-mauve *orthocladum* with small flowers, a member of the *lapponicum* Series which seemed to deserve wider planting.

Behind was an interesting stand from The Hydon Nurseries, Nr. Godalming. As before, the most unusual plants were magnificent specimens of the American *R. carolinianum*, *R. carolinianum album*, and *R. minus*. These species have a neatness and compactness which is very pleasing. They grow very well in this nursery with its light soil and very good drainage and this seems to be their requirement. They present, however, a challenge since all

the members of our party commented that they had never succeeded in growing them nearly so well. A striking deep reddish rose-flowered hybrid with large trusses was 'Floriade', marked in the handbook with a N for new and given F as a rating but obviously qualifying for more in later editions. With it the older 'Mrs. G. W. Leak' with its bicoloured effect of pale blush pink and prominent deep maroon blotch was striking as ever. 'St. Tudy', Major General Harrison's rich mauve hybrid of *augustinii* and 'Blue Diamond' has now established itself as a rival to 'Blue Diamond' and is even stronger in colour. The lovely white azalea 'Palestrina' made a nice colour complement for it.

Waterer's had great billowing masses of flower colour and on standards of cultivation alone well deserved their Gold Medal and the Rothschild Cup which they also won the previous year. 'Mrs. G. W. Leak' and the older 'Cynthia' dominated the centre of the stand which was fronted by evergreen and deciduous azaleas. It made a well-balanced group. 'Kathleen' was striking as one of the most floriferous of the pink evergreen Malvatica azalea group while the warmer apricot pink 'Blaauw's Pink' was covered with flower and stood out even at a distance. It will require careful placing in the garden but after some cogitation one of us decided that it was a plant he wanted to grow. A more unusual plant there was a good specimen of the greenish-cream *R. ambiguum*. Behind, the Knap Hill Nursery had a stand in which their deciduous azaleas predominated and they well deserved the Banksian Silver Gilt medal awarded. A mass of the creamy yellow 'Lapwing' in the centre was very beautiful and in the garden many now prefer these softer colours to the more brilliant orange-reds such as 'Glowing Embers' and 'Dr. Oosthoek' which were also shown. 'Golden Oriole' was a deeper yellow, not unlike *luteum* but with the yellow a little clearer and with a much fuller and bigger truss of flower. 'Waxwing' was a very pretty pale pink, which would also look well in the garden.

A Silver Gilt medal was given to Messrs. Reuthe for a stand dominated by the very pale yellow 'Goldfort' which gives an appearance of coolness to the garden in spring. A complete contrast and obviously popular were some brilliant scarlet-flowered domes of 'Gertrude Schäle', obviously a very striking plant if it will preserve this dwarf character. It was raised by Herr Dietrich Hobbie in north Germany and so should be hardy enough. Some good plants of the dwarf purplish mauve *R. drumonium* on this stand also merited mention.

Messrs. Slocock's stand was the largest of the nurserymen's and made a fine bank of colour with some very nice plants of rhododendrons both tall and dwarf, as well as evergreen and deciduous azaleas. In the centre was a tall plant of 'Carex White', a very clean white for a hybrid. A deep coloured form of the mauve *R. russatum* also attracted attention while we have seldom seen better flowered plants of the cerise-pink 'Humming Bird'. In one corner was a very striking mass of the scarlet 'Elizabeth', which we much preferred as a bush to the plants of it grafted on standards.

The stand of rather tender rhododendrons from The National Trust for Scotland at Brodick Castle was easily the outstanding feature of the Show for many of us and Mr. J. S. Basford deserves the warm thanks of all the visitors for the beautiful condition in which he had brought them down from Scotland and for the unusual character of many of them. Particularly fine was the big plant of *R. taggianum* with large waxy flowers slightly frilled at the margins and contrasted with the Ludlow and Sherriff forms of *R. lindleyi*. Mr. Davidian pointed out the much greater width of the leaves of *R. taggianum* as opposed to those of *lindleyi*. It was also good to see *R. inaequale* from the Ciliicalyx subseries which has now become a rare plant in cultivation. This was derived from one collected by Dr. Geoffrey Herklots in Nepal and had a strong sweet scent. Along one side were vases of Mr. Basford's own hybrids derived from *R. lindleyi*, 'Fragrantissimum', 'Lady Alice Fitzwilliam' and a number of other parents. They were variable but all beautiful flowers of good form, white, sometimes tinged with pink, and all were very promising plants for the cool greenhouse or for gardens in the milder areas. So far Mr. Basford has not picked out for naming any individual clones.

A fine form of *R. arizelum* had many flowers to the truss and was an unusual pink colour. With it was *praestans* slightly deeper in colour and with matt rather than glossy foliage. Other unusual species were *pendulum*, which it is rare to see grown in the open, *sulfureum*, a good yellow-flowered rather dwarf plant but unfortunately tender in most gardens, *caloxanthum*, a beautiful species and *johnstoneanum*.

SPECIES CLASSES

It becomes increasingly difficult each year for the same authors to produce new remarks on the species classes, held always at the same season of the year and varying so little in content from year

to year, although we hope it is interesting to some to record which species or forms of species were the prize-winners from year to year. This year Lord Aberconway and the National Trust again won first prize with the following species from Bodnant in Class 1 for eight species, *macabeanum*, *arizelum*, *irroratum*, *rex*, *morii*, *calophytum*, *thomsonii* and *cinnamomeum*. The first prize was the Lionel de Rothschild Cup. Their group included a nice *macabeanum* although in general the large-leaved species, apart from those on the Brodick stand, were not this year up to the standard we have seen at some past shows. The weather was much against them. Mr. S. F. Christie of Blackhills, Elgin, Morayshire was second with an interesting selection. These were *sutchuenense* a very good form, *monosematum* of the Barbatum Series, a rather rare plant shown here in a very fine pale pink form, *hodgsonii* an outstanding form, *anthosphaerum* another rare plant hardly ever seen, *eximium*, *calophytum*, *basilicum* and *globigerum*. Third was Mr. E. de Rothschild of Exbury with *fictolacteum*, *niveum*, *basilicum*, *thomsonii*, *pseudochrysanthum*, a very lovely plant recalling the wonderful specimens of this species at Rowallane, *crinigerum*, *floribundum* and *euchaites*. It was most unusual that only one specimen of the Arboreum Series was shown in these three groups. Among the fourth prize group the Crown Estate Commissioners included a rather unusual *dichroanthum* with pale peach-coloured

Photo: Ernest Crowson of J. E. Downward

Fig. 34—*Rhododendron lindleyi* 'Geordie Sherriff', A.M. May 19, 1969, as a hardy-flowering plant. Exhibited by Messrs. A. C. and J. F. A. Gibson (see p. 188).

Photos: Ernest Crowson of J. E. Downward

Fig. 35—*Rhododendron edgeworthii* which won the first prize in Class 5 of the Rhododendron Show when entered by Sir Giles Loder, Bt. (see p. 149).

Fig. 36—*Rhododendron arizelum*, Farrer 863, which received the second prize in Class 5 of the Rhododendron Show when entered by Messrs. E. H. M. and P. A. Cox (see p. 150).

flowers and darker margins to the petals, also a very lightly spotted *morii* which we preferred to the usual more heavily spotted form.

Class 2 for three species was won by Wing-Cdr. F. L. Ingall of Corsock House, Castle Douglas, Scotland who showed *sutchuenense* var. *geraldii*, *lacteum* and *roxieanum*. The *lacteum* was not, however, nearly the equal of some of the outstanding ones he has shown in previous years nor were there any better ones elsewhere in the Show. The Earl of Stair was second with some fine flowers from Lochinch among which his *crinigerum* was very good both in the markings on the flower and for its foliage. He also showed large heads of *arizelum* and *sinogrande*. The Crown Estate Commissioners had an interesting *macabeanum* with deep red stigmas in their third prize group and this contrasted with others in the Show with green stigmas. They also showed *kendrickii* a rare plant of which our group only knew of one other good plant, that at Kilmacurragh Hotel in Co. Wicklow, Ireland as well as those shown here and in Class 3. The very white *hyperythrum* from Formosa was also a good specimen.

Class 3 called for three species shown by an exhibitor who had not won a prize in either Class 1 or 2 during the previous five years and was won by Sir William Pennington-Ramsden with flowers from Muncaster Castle, Cumberland. It was very pleasing to see rhododendrons again from this famous and beautiful rhododendron garden which was described in *The Rhododendron Year Book* for 1953. He showed an outstanding form of *dichroanthum*, *macabeanum* and *kendrickii*. Major E. W. M. Magor from another famous old rhododendron garden, Lamellen in north Cornwall, was second and Mr. J. Camden from Wentworth was third. The first prize for Class 4 for a single species was the McLaren Cup; it was won by The Earl of Stair with a very fine truss of *macabeanum* from Lochinch. He also won the second prize with a very strong cerise form of *arizelum* var. *rubicosum*. The flowers were strongly marked with a deep crimson, almost black-blotch which made this one of the most interesting exhibits in the Show.

Class 5 for a single spray of a species also had some of the most distinguished exhibits in the Show. It was won by Sir Giles Loder with a very lovely spray of *edgeworthii* in perfect condition. The flowers were white with a slight pink tinge and had a moderately strong scent (Fig. 35). This exhibit grown in the open, shows that this species is hardier than its reputation and should be tried in warm

and sheltered positions by more gardeners. An old plant grows well outdoors in the Royal Botanic Garden, Edinburgh. An outstandingly pretty pale blush purplish pink form of *R. arizelum*, under the Farrer No. 863 was awarded second prize and was undoubtedly one of the most interesting exhibits in the Show (Fig. 36). The spray had six large compact trusses of flower and the foliage, although rather small for the species, had good rusty-orange indumentum on the under side. This is certainly a form which should be more widely grown. It was shown by Messrs. E. H. M. and P. A. Cox from Glendoick, Perthshire, Scotland. Mr. de Rothschild was third with a form of *basilicum* with fine clean white flowers each with a prominent dark reddish blotch. Again the leaves had a good rusty indumentum on the under side. The Crown Estate Commissioners were highly commended for a spray of the rarely seen *adenopodum* of the Ponticum Series, which had pretty pale-pink spotted flowers.

In Class 6 for *arboreum* or one of its sub species, The Countess of Rosse and the National Trust showed from Nymans an unusual strong cerise-coloured form which was pretty although almost a "shocking pink". Lord Stair's form of *roseum* was also very pretty and a paler pink than the one from Nymans. His *delavayi* easily won the first prize in Class 7 with its bright scarlet flowers. This is a tender species and we do not remember having seen a better truss of it before.

In Class 8 The Countess of Rosse's *crinigerum* from Nymans was very fine and had an unusually well-shaped truss. There were also good forms of *morii* both from Bodnant and Exbury which we noted in this class. In Class 9 for the Boothii Series there were also some nice exhibits; a good form of *sulfureum* from Brodick was first. The Countess of Rosse's *tephropeplum* in second place was a good form and well grown while The Earl of Stair's *chrysodoron* was an extremely good deep yellow form although the flowers of this species always seem somewhat small relative to foliage and it is a tender plant.

Class 14 for any species of the Falconeri Series other than *falconeri*, *fictolacteum* or *rex* was most interesting and well diversified; out of fourteen entries no two were alike. The first prize went to Mr. S. F. Christie of Blackhills for a marvellous specimen of *hodgsonii*, outstanding in its colour, a pretty cerise-pink. This contrasted particularly with a very strong one of episcopal purple from Sir Ilay Campbell, although this did not win a prize. Mr. Christie also won second place with a good truss of *basilicum*. He also won a second prize in Class 16 for members of

the Fortunei Series with a good deep pink form of *calophytum*, which was specially good for its foliage although the flowers were not in perfect condition. For this reason perhaps the first place went to Messrs. E. H. M. and P. A. Cox, who showed a very pretty rather deep pink *sutchuenense* which had a slightly frilly appearance from the undulating edge of the bells. Mr. F. L. Ingall showed *sutchuenense* var. *geraldii* for third place. It is surprising how frequently over the years this species and its variety appear in the prize lists both in the Competition and the Show and it is indeed a rhododendron that can be recommended for any garden where there is adequate space and where rhododendrons can be grown. It is not a species though for a hot dry site. The class for the Fulvum Series was won by a nice clean white truss of *uvarifolium* shown by Mr. de Rothschild. In Class 18 for members of the Grande Series, the first prize went to a truss of *sinogrande* from Lochinch, but it seemed to our panel of advisers rather a poor specimen with uneven foliage and they all wondered as to why the judges had preferred it to several good trusses of *macabeanum* in the same class, one of which also came from Lochinch and won second prize for Lord Stair. Third was *praestans* from Brodick. In the next class, No. 19 for the Irroratum Series, it was interesting to note how variable are the species. Here were shown two forms of *irroratum* ranging from the very heavily spotted form 'Polka Dot', shown by Mr. de Rothschild for first prize, to a pretty pink only lightly spotted form in second place, shown by Messrs. Cox of Glendoick. A truss with deep purplish-puce flowers of *heptamerum*, a rare species, from Nymans won third prize for the Countess of Rosse and the National Trust.

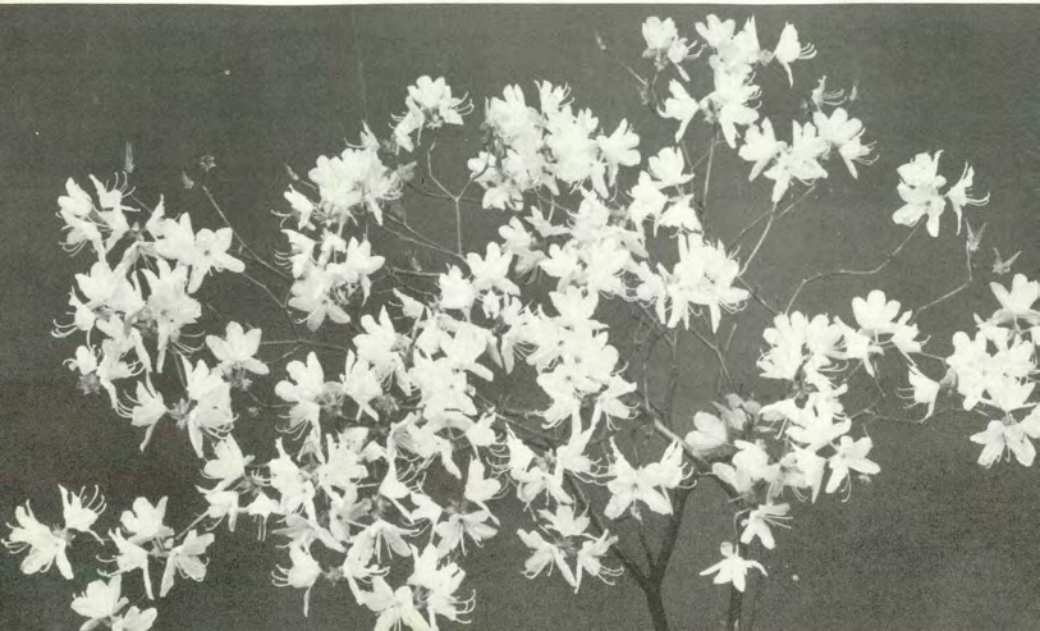
It was obviously not a good year for *lacteum* and it was unusual to see a specimen of this species from Wing-Cdr. F. L. Ingall, albeit not nearly up to the standard of some he has shown, pushed into third place by a neat white truss of *phaeochrysum* from Messrs. Cox for first place, and *traillianum* from Nymans for second place.

The Maddenii Series classes for which flowers may be opened under glass or in the open also bring out some very lovely flowers, and in Class 21 there were two very beautiful trusses of *lindleyi*, the first prize went to Major A. E. Hardy for one with waxy flowers and narrow leaves, the second to one from the Crown Estate Commissioners. Brodick won first prize for the next class of Maddenii other than the Megacalyx subsection for a particularly good truss of *inaequale* (Fig. 37), which most growers do not

Photos: Ernest Crowson of J. E. Downward

Fig. 37—*Rhododendron inaequale* which received the first prize in Class 22 of the Rhododendron Show when entered by the National Trust for Scotland, Brodick Gardens (see p. 151).

Fig. 38—*Rhododendron reticulatum*, which was entered by Lord Aberconway and the National Trust, Bodnant Gardens, in Class 36 of the Rhododendron Show for a spray of the Azalea Series, when it won the first prize (see p. 154).



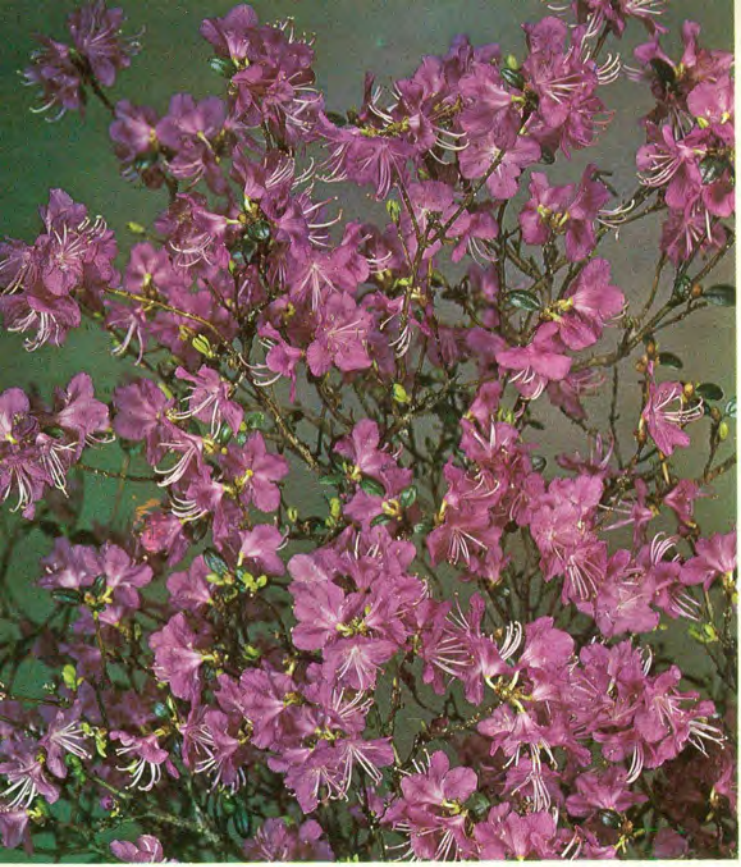


PLATE 12 (*left*)—*Rhododendron dauricum* 'Midwinter', F.C.C. February 4, 1969. Exhibited by the Crown Estate Commissioners, The Great Park, Windsor (see p. 185)

PLATE 13 (*below*)—*Rhododendron insigne*, a fine form which was first in Class 3 of the Flowering Tree and Shrub Competition, held on July 10 and 11, 1969, when entered by Lord Aberconway and the National Trust, Bodnant Gardens

find such a vigorous or easy species, but it is a very lovely flower, though not quite so large as *lindleyi*. The Crown Estate Commissioners were second with a very good pale blush pink form of *carneum* as well as being third with the double gardenia-like form of *johnstoneanum*, about which members of our panel were distinctly divided in their opinions, however it may have arisen. A fourth prize went to an interesting and rather beautiful plant still unnamed but of the Ciliicalyx Sub-series, raised from seed of Ludlow, Sherriff and Hicks 19848.

It was not an outstanding year for quality among the scarlets, but Sir Ilay Campbell's *chaetomallum*, which won first prize in the class for the Haematodes Sub-series, was a good form with large, waxy, blood-red flowers. In the class for the Neriiflorum Sub-series there were fifteen different red-flowered species from which Mr. de Rothschild's *euchaites* was judged first. In the Sanguineum Sub-series Lord Aberconway's *aperantum* had quite a large flower for this species which is notoriously shy to flower and deservedly won first prize. In the Ponticum Series class no specimens of the name species has probably won a prize for many years and this year a fine truss of *hyperythrum* won first place for Mr. de Rothschild. Nearly always the foliage of this otherwise desirable species tends to curl. Very few hybrids have so far been raised from it, but such is its quality of extra whiteness as well as extreme hardiness that it might be worth trying. Taliense gave us, as is usual nowadays, a varied class where neat foliage is as important as flower. Mr. de Rothschild's *roxieanum* var. *oreonastes* was first, Messrs. Cox's *russotinctum* second, and Mr. S. F. Christie's *globigerum* third. *R. balfourianum* var. *aganniphoides* an unusual and uncommon plant was shown by Messrs. E. H. M. and P. A. Cox, from Glendoick. It has rather a large corolla, almost like that of *floribundum*, pale rose in colour while the leaves have a soft white indumentum on the undersides described in *The Rhododendron Handbook* as "spongy", Mr. de Rothschild's *selense*, the first prize winner in Class 30 for the Selense Subseries, was a very pretty form. A truss of *R. hookeri* from K. W. 13650, shown by The Countess of Rosse and the National Trust from Nymans, was one of the outstanding specimens in the show, a really glowing, brilliant scarlet with the Thomsonii Sub-series waxiness of flower and easily won first prize in Class 33. It must indeed have been difficult to judge among the *thomsonii* in the rest of the class. Perhaps that of Col. N. R. Colville's, which won second prize, had just the largest flowers, but they were very uniform.

Among the sprays of the Azalea Series a white form of *R. reticulatum* shown by Lord Aberconway in Class 36 was most unusual and a form probably not seen here before, but one which seems well worth propagating (Fig. 38). There were several forms shown of the lovely white *R. quinquefolium*, the very elegant 'Five Arrows' from Exbury, shown for first prize in Class 35, and an even larger-flowered form with a green eye shown by the Crown Estate Commissioners in their group of three sprays to win first prize in Class 36. There were also some very well coloured forms of *R. albrechtii*, which seemed to have done much better than *R. schlippenbachii* in this rather difficult year.

The Anthopogon Series with its dwarf species and small tight trusses of flower is becoming more popular. Messrs. E. H. M. and P. A. Cox won both first and third prizes in Class 37 for sprays of this Series. A very good spray with pretty tight trusses of *R. cephalanthum* was first, while third was the unusual deep pink *R. kongboense* introduced many years ago by Kingdon Ward under K.W. 6020 from south-east Tibet. Second, was again an unusual plant, the creamy *R. primulaeflorum* var. *cephalanthoides* from the Crown Estate Commissioners.

A very unusual and interesting copper-coloured form of *R. campylogynum* won first prize for Lord Aberconway in Class 38 for sprays of this species. It was remarkably early-flowering and had one other small peculiarity in that the stamens were adpressed to the petals.

In Class 40 a very good vase of *R. glaucophyllum* var. *luteiflorum* won first prize for Brodick. No one seems to be able to show this species as well as Mr. Basford. In third place The Countess of Rosse's *tsangpoense* was a very unusual colour, probably derived from K.W. 5844, and a form in which the leaves are not very glaucous below. A lovely and very pale form of *desquamatum* won first prize for a spray of the Heliolepis Series in Class 41 for the Crown Estate Commissioners. The Lapponicum Series also gave us a well-filled class with fifteen entries. Col. N. R. Colville of Cornwall was first with a very well-coloured form of *scintillans*, while Mr. de Rothschild's *ravum* from the K.W. 1951 collection was second. Another interesting and unusual entry in this class was a spray of *cuneatum*.

The class for *racemosum* was also well filled and showed great variation in colour, as well as in tightness of truss. The first prize went to Messrs. E. H. M. and P. A. Cox for a well-coloured pink form like the famous Forrest 19404 which is such a splendid

plant for the larger rock garden. The next class, No. 46, for any other species of the Scabrifolium Series produced another outstanding specimen to win first prize for Mr. de Rothschild in a form of *spinuliferum* with long tubes and bright orange-scarlet petals. Class 50 for a spray of the Triflorum Series showed us a very interesting form of *ambiguum*, in which the underside of the leaf was very heavily scaled. It was shown by Messrs. Waterer for first prize. Lord Aberconway showed the unusual *lochmium* for the third prize.

The Yunnanense Sub-series was not well represented this year in its type species, but Lord Aberconway's wonderful pink form of *davidsonianum* 'Bonfires of Delight' easily won first prize in its class, contrasting strongly with other smaller white-flowered plants.

The class for exhibitors who had not won a first prize at the Rhododendron Show during the last five years attracted five entries and was won by Mr. J. Camden with a good specimen of *fictolacteum*, while Mr. G. Jennings showed *thomsonii* and *campanulatum* for second and third prizes respectively.

HYBRIDS

The Classes for hybrids gave us some very fine flowers and were generally of a higher standard than those of the species, showing perhaps the greater vulnerability of the species to bad weather. In Class 61 for eight hybrids Mr. E. de Rothschild had an extremely well balanced and contrasted group of great merit which won first prize. His specimen of 'Col. Rogers' was one of the highlights of the Show and stood out in the centre of his group. We have seldom seen a finer truss of this old hybrid from *falconeri* crossed with *niveum*. 'Mariloo' gave us a very pretty pale-yellow truss of large flowers while 'Lionel's Triumph', also a *lacteum* hybrid, was very fine, although neither had the deep yellow of a good form of *lacteum*. Both these were also shown in his winning group last year. His other flowers were 'Fortune', 'Galactic', 'Cornish Cross', 'Queen of Hearts', and 'Janet'. The second prize went to General Eric Harrison of Tremeer in north Cornwall, whose garden is described elsewhere in this issue. He showed a very well-balanced collection and it was interesting to note that the old mauve 'Susan' was still good enough for a place in such a group. Among his fine reds, 'Zyxya', a very bright colour, was outstanding and we hope may be one of the plants to become much more widely grown in the future. 'Matador' × 'Gaul' was

another very promising red, while 'Robert Keir' was a good yellow *lacteum* hybrid just flushed with pink, a fine plant to commemorate a great rhododendron grower, the late Mrs. Harrison's head gardener at Tower Court.

Lord Aberconway's third prize group from Bodnant was as usual strong on the reds and they were shown in very varying shades. Among them his 'Choremia' was, as ever, very good indeed. In its best F.C.C. form this is a wonderful plant.

In Class 62 for three hybrids, the Crown Estate Commissioners were first, Sir Ilay Campbell, Bt. of Crarae second, and Messrs. Reuthe third. The specimen of 'Lionel's Triumph' shown from Windsor was magnificent, one of the finest trusses of this hybrid that we have seen and contrasting well in the group with the older and pinker 'Luscombei'. Sir Ilay Campbell also showed a rather small truss of his interesting 'Crarae' for first place in Class 63, together with 'Shilsonii' and a *venator* hybrid, and Sir William Pennington-Ramsden of Muncaster Castle was second. In his group, 'Muncaster Mist' was a very pretty lavender. His other two were the old 'Cunningham White' and 'Barclayi Helen Fox'. This was a class for those who had not won a prize in either of the two previous classes in the last five years. Mr. de Rothschild showed three very effective sprays of 'Cornish Cross', 'Luscombei', and 'Eleanore' for first prize in the class for three sprays of hybrids. The one of 'Cornish Cross' was outstanding, and this old hybrid nearly always looks well on the Show Bench when it is fresh, but tends to fade from its best rather quickly.

The Loder Challenge Cup for a single hybrid was won for the National Trust for Scotland by a fine truss of 'Fortune' from Brodick Castle. Mr. Julian Williams from Caerhays Castle was second with another and paler hybrid of *sinogrande* crossed with *falconeri*, while Mr. de Rothschild was third with another truss of 'Fortune'.

The Crosfield Challenge Cup for six hybrids raised by, or in the garden of the exhibitor was won by Mr. de Rothschild with a very interesting and well staged group. Those we noted particularly were 'Jocelyne', 'Lionel's Triumph', and 'Galactic', all three being *lacteum* hybrids, but good also were the Exbury form of 'Cornish Cross', 'Fortune', and 'Eurydice' a pale hybrid of *arboreum album* and Loderi. Mr. de Rothschild also won first prize in Class 67 for three sprays of hybrids raised by, or in the garden of the exhibitor, showing 'Costa del Sol', another lovely *lacteum* hybrid, rather smaller growing than 'Jocelyne' or 'Lionel's

Triumph', 'Cornish Cross' and a very fine spray of 'Eleanore'. 'Costa del Sol' of the Joanita grex also received an A.M.

It was surprising that even in this late season Class 65 for six hardy hybrids classified A or B, which is usually well attended, only had one entry and this was disqualified as not being according to schedule. We cannot remember any other recent Rhododendron Show in which this has happened. Several of the other hybrid classes for hybrids from one particular parent also either had no entries or only a few. Class 78 for *thomsonii* hybrids, however, was an exception with twenty-two entries and was won by the Crown Estate Commissioners with a very well-coloured truss of 'Luscombei'. In the next class for hybrids from the *thomsonii* sub-series, other than from *thomsonii* itself, Mr. de Rothschild's 'Queen of Hearts' asserted its superiority again; it is a wonderful plant, especially when seen with light shining through the bells from behind. Lord Aberconway's *hookeri* × 'F. C. Puddle' which won second prize was a brighter red, but also a very promising plant. The original seedling registered of this cross was called 'Hopeful'. Sir Giles Loder's spray of 'Alison Johnstone', which won first prize for sprays from the Cinnabarinum Series, was a very pretty one and curiously showed quite a big variation from Major Hardy's spray of the same hybrid which won second place. This is a lovely and very free-flowering hybrid which should be grown much more widely. Class 83 for tender rhododendrons of which one parent is from the Maddenii or Edgeworthii series always produces some very lovely flowers, and is one to which we always look forward. This year an unnamed *edgeworthii* hybrid from Brodick Castle, probably grown in the open, was outstanding, well beyond the other entries, and we hope it may be both named and propagated. Sir Giles Loder's 'Folies Bergére' of the Parisienne grex was also an attractive flower. In the next prize General Harrison's vase of 'St. Tudy' was outstanding for its strong violet-blue and is establishing itself as the natural winner in this class. It is important though to secure vegetatively propagated clones of the original plant. In Class 88 for hybrids of species not provided for in the previous classes it was strange to see the contrast of 'Fortune' from Exbury for first place with 'Yellow Hammer' from Bodnant for second place, two very divergent plants in size and form. In Class 91 for sprays up to 30 inches tall the compact growth of the old 'Boddaertianum' well shown by Hon. Edward Boscawen of High Beeches, was very fine and displayed well the garden value of some of the older

hybrids. This plant is noteworthy also for its rather narrow upright growth. In this class Sir James Horlick's 'Damaris Little Paddocks', shown by the Crown Estate Commissioners, a pale lemon yellow, gave us a beautiful vase. The first prize in the two classes for specimen plants of both evergreen and deciduous rhododendrons was won by Mr. O. C. A. Slocock, with 'Moonstone', an unusually deep pink form and a rather pale but well-flowered bush of *albrechtii* respectively. 'Moonstone' always seems to attract attention when well shown and is still one of the best rhododendrons, especially where space is limited. The collections of leaves in Class 105 showed a fine variety, ranging from 1½ inches long to 2 feet.

In compiling this report we are indebted for many helpful comments to Mr. Geoffrey Gorer, Mr. R. C. Jenkinson, Mr. Peter Cox, and Mr. J. W. O. Platt, who accompanied us round the hall.

THE CAMELLIA COMPETITION

For flowers grown under glass or in the open March 18 and 19, 1969

By JAMES PLATT

SOME mention of the weather must be excused in a report of this nature. That of the first two months of 1969 was singularly unpleasant throughout the country and remained unco-operative in March. Camellias cut in the open air would have been almost out of the question and the Competition demonstrated once again that the inclusion of camellias grown under glass was inevitable in one held in March. And how grateful we were to those happy persons who grow camellias under glass and cut them so generously for the Competition.

Camellias were shown well on a number of trade exhibits. Treseders Nursery of Truro had one of the best forms of wild *Camellia reticulata*, the pure, rose-pink 'Mary Williams' and many cultivars of *C.* × *williamsii*. Of them 'George Blandford' with large, semi-double rose-red flowers, the single rose-pink 'Rosemary Williams' and 'Charles Michael' of a rather deeper pink than 'J. C. Williams' were particularly attractive. Haskins Nurseries of

Ferndown, Dorset, showed a good variety of cultivars of *C. japonica*, including 'Mrs. D. W. Davis' with fine large flowers of the palest pink, 'Dr. Tinsley' of a delicate but deeper pink and the salmon-pink, loosely double 'Comte de Broobrinsky', which was described by Verschaffelt in Belgium as long ago as 1851.

There were 267 entries from fourteen competitors in the Competition. It was encouraging to find a newcomer, Dr. J. A. Smart of Barnstaple, Devon, taking a number of prizes, with a particularly fine entry in Class 17 for any six cultivars. Sir Giles and Lady Loder overcame much strong opposition and captured twelve First, eight Second, six Third and two Fourth prizes. It should not, however, be imagined that the struggle was an easy one for there were many splendid flowers throughout the Classes. In 1968 *C. japonica* 'Mrs. D. W. Davis' was the outstanding flower in the Competition. This year it was *C. japonica* 'Drama Girl', a large vase of which covered in flowers averaging quite 6 inches across, was shown to the committee by Sir Giles and Lady Loder of Leonardslee and received a F.C.C., with a Certificate of Cultural Commendation. It also appeared here and there in Sir Giles' entries and overcame most opposition. Lady Loder assured us that 'Drama Girl' is a good doer out of doors, but the flowers are not quite so large. Under glass it appears to have great vigour, with long growths which are stout enough to bear the weight for such large flowers, and to be very generous with them. The colour is described as carmine-rose.

The first four classes in the Competition were for single-flowered cultivars of *C. japonica*. In Class 1 Mr. Edmund de Rothschild of Exbury took the first prize with a charming little cup-shaped flower of good texture named 'Charlotte'. 'Alba Simplex' shown by Major-General E. G. W. W. Harrison of Tremeer, Cornwall, and Mr. R. Strauss of Ardingly, Sussex, was in the second and third places, both neat, little flat flowers. The Duke of Devonshire was first in Class 2 with a well-formed, smooth 'Jupiter' from Chatsworth, beating Dr. J. A. Smart's rather light red 'Hatsu Zakura' and the Crown Estate Commissioners' 'Jupiter', which were second and third. There were no awards in Class 3 for single variegated flowers, and Class 4 for any three singles gave us the same cultivars over again, with the exception of a rather large 'Rogetsu' from Chatsworth and a pleasing rose-pink seedling from Windsor.

In Classes 5 to 8 for any semi-double cultivars of *C. japonica* 'Gauntletti' was shown well, taking a first for Sir Giles Loder, and a third for Mr. A. S. Carnell of Haywards Heath, another welcome

newcomer to the Competition. Both were fine large flowers, preparing the visitor for the bigger flowers to come which made their first appearance in Class 6. There were sixteen entries in this class, Sir Giles being first with a 'Guilio Nuccio', nearly 6 inches across and looking very like a rosy-red *reticulata*. Mr. Strauss was second with a 'Drama Girl' of the same size. The Duke of Devonshire was third with a 'Mrs. D. W. Davis', quite 6 inches across, and Mrs. A. H. Potter of Wentworth's flower of the same cultivar, which was rather less full, was Commended. Class 7 was for a variegated cultivar, and the winning flower, Sir Giles Loder's 'Pauline Winchester', was one of considerable delicacy, its palest pink petals having here and there a light red stripe. The second prize went to Mr. H. G. Ayling of Stanmore with a pretty 'Wheel of Fortune' with red speckling and stripes on a pink background. Mr. E. de Rothschild was third with 'Lady Vansittart' from Exbury, with a few red stripes on white ground. The next Class, which was for three cultivars, had nine entries with many excellent flowers. Sir Giles Loder took the first and second prizes. Of the cultivars which we had not seen in previous classes, the ice-cream pink 'Dainty Maid' with toothed margins, rose-pink 'Lucy Hester' and the bright red 'Reg Ragland' were particularly good. His 'Geisha Girl' was attractive, so pale a pink with red stripes. Two much older and European cultivars, 'Lady Clare' and 'Adolphe Audusson', were in the Duke of Devonshire's entry which was third. They were splendid, large flowers and just as good as many of the Transatlantic varieties to which we are all too apt to give our undivided admiration, perhaps rather thoughtlessly. The Duke, we know, also grows 'Mrs. D. W. Davis' and had a lovely flower of it as his third entry. We mean her no slight. Mr. R. Strauss won a fourth prize. He had a fine 'Lady Clare' and a deep rosy-red 'Gloire de Nantes' and a 'Drama Girl' which if in perfect condition could not compete in size with his own entry in Class 6 and those from Leonardslee. Mr. Edmund de Rothschild's entry, which was composed of red and white 'Nagasaki', a smooth 'Apollo' and the pleasing rosy-red 'Bikashi Bia', was Highly Commended. This was altogether a satisfying Class.

The next Sub-Section of four Classes was for anemone and paeony-formed cultivars of *C. japonica*. The first Class in each Section is for white cultivars and there is rather a tendency to declare that perfection in white camellias is only to be found in those with single flowers. Surely Mr. Ayling's beautiful 'Silver Chalice', with its creamy tone in the centre, which was first in Class

9, was as perfect as one could wish. And Sir Giles Loder's 'The Pilgrim' and 'Fashion Note', the winners of the second and third prizes, ran it very close. There were seventeen entries in the next Class for coloured cultivars. A magnificent 'Drama Girl' quite 7 inches across was first, needless to say from Leonardslee. Dr. Smart's 'R. L. Wheeler', a fine rose-red, was second and Mr. R. Strauss' 'Grand Slam' third. This was a handsome paeony-formed, red flower of good substance and on this occasion 5½ inches across. Sir Giles Loder took all four prizes in Class 17, in which there were thirteen entries. Among his entries was a lovely pink veined and white margined 'C. M. Wilson', an 'R. L. Wheeler' which had a few white areas to the predominating red, and 'Ballet Dancer' in which light pink gradually deepens outward. In Class 12, which is for three cultivars, examples of many of the cultivars had been seen before. Sir Giles' 'Drama Girl' was as fine as ever, as was his 'C. M. Wilson'. Mr. Ayling was third and again showed a perfect 'Silver Chalice'.

Classes 13 to 16 in Sub-Section D were for rose-formed and formal double cultivars, the camellias in fact of romantic, consumptive heroines of the nineteenth century. Without doubt they are seen at their best when grown under glass and Mr. Ayling's 'Mathotiana Alba', which was first in Class 13, was no exception. Nor was another flower of it from the Crown Estate Commissioners which was second. We have commented in previous years in these Reports on the richness and perfect form of the Duke of Devonshire's dusky red 'Mathotiana'. It took the first prize in Class 14. Another specimen of it from Mr. Ayling, which was placed third, had a smaller flower of a lighter shade and with more pointed petals. Mrs. A. H. Potter took the second prize with a large pink 'Lallarook' and an entirely red 'Coquetti' from the Crown Estate Commissioners was given the fourth place. In the next Class for a variegated cultivar, Mr. Ayling was placed first with a very pink 'Augusto Pinto', each petal bordered with white but showing none of the usual lavender flush, while another flower of it from Sir Giles Loder of a richer shade and more marked white margins took the fourth prize. His 'Olga Anderson', a rose-pink with a few white markings, was second and 'Bella Romana' from the Savill Garden, very carnation-like with red stripes on a pink ground, was fourth. Class 16 was for three cultivars and of the sixteen entrants the Crown Estate Commissioners were first, the Duke of Devonshire second and Sir Giles Loder third. We had seen many of the entries in previous Classes, but there was a good

red from Windsor in 'Princess Murat', a bright pink from Chatsworth in 'Mme Le Bois' and a lovely white, yellow-centred 'Fimbriata Alba' from Leonardslee.

Classes 17 and 18 were for any six and any three cultivars of *C. japonica* respectively. Sir Giles Loder was first in the big class, out of six entries. He had an exceptionally fine 'Guilio Nuccio' over 6 inches across and a splendid, rose-red, dome-shaped 'Mathotiana Supreme' with a lovely 'The Pilgrim' and 'Lucy Hester' among his supporting varieties. In another entry, which, however, was not placed, he showed the striking 'Jessie Katz', a rather large, loosely double red of crepy texture. Dr. Smart took the second prize with an almost equally fine entry, his rather open red 'Saudade de Martins Branco' and pink 'King's Ransom' being outstanding. Mr. Ayling was placed third with some interesting cultivars. There were the coral-pink 'Sunset Glory', the very large red and white striped 'Extravaganza' with pronounced petalodes, a well-shaped deep rose-red 'Kramer's Supreme' and 'Pink Champagne'. Sir Giles Loder took the first and second prizes in Class 18, in which there was only one other entry. Once again his 'Mathotiana Supreme' was very good and his large rose-pink 'Faith' attracted attention. In the third entry, which was from Chatsworth, there was a charming flower of the small double 'Peach Blossom' and a very smooth 'Jupiter', a cultivar which is equally rewarding in the open.

Section II for species other than *C. japonica* started with the variable wild *C. reticulata* in Class 19. A light pink flower from Windsor, with rather narrow, erect petals took the first prize, while that from Exbury, which was second, was a deeper rose-pink with veining showing clearly in the wider petals. General Harrison's flower, which was in the third place, was a deep rosy red. A flower from Chatsworth was first in the next class for *C. reticulata* 'Captain Rawes', with one from Windsor of almost equal splendour, second, and a fine flower from Exbury, third. These flowers were quite 6 inches across, and few if any other cultivars of *C. reticulata* have flowers of such quality to rival this long-introduced variety. In the next Class, which was for a form other than those in the two previous classes, 'Robert Fortune' from Windsor was first out of ten entries, with 'Tali Queen' from Exbury second and 'Crimson Robe' from Leonardslee third, the two latter having wavy petals which are upright towards the centre. In Class 21 for a spray of this species a lovely vase of the bluish-pink 'Osmanthus Leaf' from the Crown Estate Commissioners

was first, beating the Duke of Devonshire's 'Captain Rawes' and their own red 'Lion Head', which received a Certificate of Preliminary Commendation the same day. One imagines from the next five classes that species such as *C. saluenensis* and its hybrids are not grown to the same extent under glass as *C. japonica* and *C. reticulata*. The entries were few. Once again the vivid blue-pink form of *C. saluenensis* from Exbury almost startled one, taking the first place from Windsor's apple-blossom pink form. There were more entries in Class 25 for single-flowered cultivars of *C.* × *williamsii*, when a deep bluish rose-pink 'St. Ewe' and the fine rose 'Parkside', both from Windsor, were first and second, beating Sir Giles Loder's delicate pink 'J. C. Williams', which was in the third place. Multi-petalous cultivars in the next Class were poorly represented, with only two entries, both of them 'Donation'. Again there were few entries in the next Class for any single-flowered hybrid of *C. reticulata*. Sir Giles Loder took the first and second prizes with *C.* 'Barbara Hillier', followed by a good flower of the rose-pink *C.* 'Inamorata', which was also the entry from Windsor. The former, with funnel-shaped flowers of bright pink, and whether a species or hybrid, has found its way into this Class and there it stays for convenience sake. There were more entries, in fact five, in Class 28, which followed, for a multi-petalous hybrid of *C. reticulata*. Sir Giles Loder took the first prize with a lovely flower of the glowing pink 'Leonard Messel'. This impressive hybrid has produced a variegated sport, a flower of which gave Sir Giles the second prize, without, it must be confessed, creating any strongly favourable impression. Mr. Ayling's pink 'Howard Asper' with numerous petalodes, which made it dome-shaped, was third and agreeably attractive. There were only two entries in Class 29 for any hybrid and Windsor's 'Exaltation', a fine flat double pink, well deserved the first prize which it received. Class 30 for a spray each of any three hybrids was poorly supported, but the entries from Leonardslee and Chatsworth, which were first and second respectively, made up for lack of other competition. Sir Giles had lovely sprays of *C.* × *williamsii* 'Cherub', with delicate pink, single flowers, 'J. C. Williams' and superlative 'Leonard Messel'. The Duke of Devonshire also showed two simple × *williamsii*, the cherry pink 'Bartley Pink' and shell-pink 'Hiraethlyn', and splendid 'Donation'. A plant of this latter hybrid was the only entry in Class 31 for a pot of a camellia plant in bloom. The lonely entrant was Dr. A. S. Milton of Hatfield, Herts., who deserved his first prize.

THE CAMELLIA SHOW
April 15 and 16, 1969

By JAMES PLATT

THE weather had shown no improvement by April 15th and 16th when the Show for Camellias grown in the Open was held. Cold winds and frost persisted almost throughout the whole of Britain. As a result, the Camellia Show, usually one of the delights of early spring, was a disappointment. Visitors, however, must surely have thanked the nine exhibitors, who all won prizes, for the effort they must have made under such trying conditions. Major-General E. G. W. W. Harrison of Tremeer, Cornwall, took over twenty-four prizes including twelve firsts, showing flowers of consistently good quality even if they were not as large as usual. Section II for sprays was on the whole the more satisfactory.

One fact which emerged not only from this Show, but also from observations in gardens, particularly those subject unduly to spring frosts, was that cultivars of *Camellia* × *williamsii* stood up to the trying weather better than those of *C. japonica*. It is true that many of their flowers were blemished, but they did not have the depressingly ravaged appearance of the japonicas. The finest spray in the Show was a lovely one of *C.* × *williamsii* 'J. C. Williams' from the Crown Estate Commissioners, The Great Park, Windsor. Again it was the large plants of similar cultivars, including 'Donation', which were in good condition in the ambitious exhibit staged under the Clock by the Superintendent of Gardens, Hampton Court Palace, an exhibit which on the whole had obviously suffered at the hands of the weather. The Award of Merit was given to *C.* 'Maud Messel', a rich rose-pink semi-double hybrid of *C.* × 'Mary Christian' × *C. reticulata*, which was shown by the Countess of Rosse and The National Trust, Nymans Gardens. It was very free-flowering and it will be interesting to see it again in a more favourable season.

Messrs. Haskins Nurseries of Ferndown, Dorset, again had one of their excellent exhibits of camellia plants, showing in particular many cultivars of *C. japonica*. Among them the double glistening white 'Frosty Morn', the very double rose-red 'Kumasaka', a good paeony form in the coral-pink 'Sierra Spring' and the red fimbriated 'Alfredo M. da Silva' were conspicuous.

In the first eight Classes for single cultivars of *C. japonica* General Harrison was a frequent prizewinner. His flower in Class 6 of 'Donckelarii Fulgens' was a fine one of glowing red and his 'Jupiter' in the next Class, smooth and well-formed. Once again in Classes 9 to 19 for semi-double cultivars the General was much to the fore with good flowers of 'Adolphe Audusson', 'Donckelarii', 'Latifolia', 'Apollo' and the delicate pink 'Dr. Tinsley'. Sir Giles Loder showed a lovely 'Lady Clare' in Class 13 and Mr. Ralph Strauss of Ardingly a particularly nice 'Sode-Gakushi' in Class 16 for any white cultivar. In Classes 20 to 25 for anemone- and paeony-formed cultivars there were few outstanding flowers, though the rich rose-pink 'Hana-Tachibana' from Mrs. Potter of Wentworth in Class 24 and Sir Giles Loder's 'Altheaflora' in the next Class were exceptions.

In Classes 26 to 36 rose-formed or formal double cultivars did not fare much better. At least these Classes introduced a new exhibitor and prizewinner in Surgeon Captain J. A. N. Lock of Kingsbridge, South Devon. Perhaps his most pleasing flower was one of a pale pink striped 'Marguerite Gouillon' in Class 36. Sir Giles Loder had a pretty flower of 'Pink Lady' in the preceding Class. Class 37 for any six mixed types of *C. japonica* was more satisfying. Sir Giles Loder was first with a nice little 'White Swan' and a pronounced red 'Mathotiana' among his entries. General Harrison, who was second, had pleasant 'Mercury' and 'Preston Rose' among his, while Sir Ralph Clarke of Borde Hill had a creditable 'Gauntlettii'.

The miscellaneous Classes 39 to 48 were more rewarding. General Harrison and Sir Giles Loder in the first and second places both had clear light-pink flowers of the wild form of *C. reticulata* in Class 39. Sir Giles Loder's *C. reticulata* 'Captain Rawes' in the next class was of a good quality for an outdoor flower. The shades of pink in Class 41 for *C. saluenensis* were interesting. Sir Ralph Clarke, who was first with a rich rose-purple flower, was followed by General Harrison with one of a marked blue tinge, with Sir Giles Loder third with one of a less pronounced blue. In Class 43 for a single cultivar of *C. williamsii*, the Crown Estate Commissioners, Windsor Great Park, were easily first with 'J. C. Williams'. General Harrison's darker pink and less frequently seen 'Philippa Forwood' was second. There were nine entries in Class 44 for the stalwart 'Donation', with the Hon. Edward Boscawen of The High Beeches, Handcross, first, Mr. R. Strauss second and Sir Giles Loder third. Surgeon Captain

Lock took the first prize in Class 45 with a lovely deep rose 'Anticipation' while Sir Giles was second and third with satisfying flowers of the semi-double rose-pink 'Margaret Waterhouse' and the deep-pink paeony-formed 'Caerhays'. The flowers of 'Salutation' in the next Class were not so good, but in Class 47 General Harrison and Mrs. Potter were first and second with excellent 'Leonard Messel' and Sir Giles third with 'Barbara Hillier'. General Harrison was first in Class 48 for any four mixed types other than cultivars of *C. japonica*. His 'Leonard Messel', 'Donation', 'Anticipation' and single rose-pink *C. reticulata* were all of a pass standard. Sir Giles, who was second, had a nice × *williamsii* 'St. Ewe'. The same two contestants alone had entries in the next Class for any twelve blooms and the Leonardslee Bowl. Sir Giles was first with some of the best flowers in the Show. Many of the cultivars had appeared in previous Classes but we noted 'Nobilissima', 'R. L. Wheeler' and 'General Le Clerc'. General Harrison's flowers were almost of the same standard and he included 'Duchess of Buccleugh' which had not taken a prize in previous Classes.

The Classes for sprays of *C. cuspidata* and cultivars of *C. japonica* were not greatly inspiring, but in Classes 67 and 68 Sir Giles Loder's *C. reticulata* and *C. reticulata* 'Captain Rawes' were more interesting. In Class 69 Sir Ralph Clarke's spray of *C. saluenensis* was wonderfully free with its bright purple-pink flowers, easily placing those from Leonardslee and Windsor, good though they were, in the second and third places respectively. The highlight of the Show was the perfect spray of 'J. C. Williams' from Windsor in the next Class (Pl. 14). Sir Giles Loder took the second and third prizes with sprays of 'St. Ewe' and 'Alba Simplex' × *C. saluenensis*, both lovely, but they could not compete with success against such exquisite flowers of 'J. C. Williams'. The sprays of 'Donation' in the next Class had flowers in good condition, with the Hon. Edward Boscawen, Sir Ralph Clarke and Mrs. E. M. MacDonald, a welcome newcomer from Thames Ditton, in the first, second and third places. Sir Giles Loder showed an attractive deep rose, semi-double seedling raised from 'J. C. Williams' × 'Inchmery' in Class 73 for a spray of any cultivar of × *williamsii* other than a single cultivar or 'Donation'. Sir Giles took the first and second prizes in Class 75 for a spray of a hybrid of, or a descendant from *C. saluenensis* with 'Inspiration' and 'Barbara Hillier'. Class 76 for one spray each of any three had Windsor in the first place with 'Golden Spangles', 'Donation'

and a × *williamsii* seedling with single, apple blossom-coloured flowers. Sir Ralph Clarke was second with a freely covered spray of 'Gloire de Nantes', 'Donation' and his brilliant rose-purple *C. saluenensis*. Sir Giles, who was third, entered 'Nobilissima', 'Elegans' and 'Barbara Hillier'. This latter would appear, after its inclusion in Classes 47 and 76 as well as this one, to have the status of a stateless person or a "Flying Dutchman". The final Class in Section II for any six sprays, had two entrants only, with Sir Giles in the first place and Sir Ralph in the second. Sir Giles included the lovely shell-pink semi-double 'Barbara Woodroof' and an excellent seedling of 'Jupiter'. Among Sir Ralph's entries were the dark-red 'Nigra' and a fine spray of 'Sylva'.

In the final Class and Section for arrangements, six awards were made. Mrs. M. E. MacDonald was first, using 'Margherita Coleoni' effectively. Mrs. A. Holland of Balcombe made a pyramidal arrangement in which she combined the delicate tint of 'Magnoliaeflora' with other pink and red cultivars of *C. japonica*. Sir Giles Loder arranged *C. saluenensis* attractively with 'Barbara Hillier' and was given the third prize. A fourth prize was awarded to the Dowager Duchess of Devonshire with an arrangement of 'Jupiter', a second arrangement of another red cultivar by the Duchess being Commended. Finally Mr. H. G. Ayling was Highly Commended for a combination of blush-pink and red *japonica* cultivars. Thus ended a Camellia Show which, with one or two outstanding exceptions, gave camellia growers and visitors further grievances against the weather.

TRURO FLOWER SHOW

By JULIAN WILLIAMS

THE Fifty-Seventh Truro Flower Show was held this year on the 24th and 25th April. Although three weeks later than last year, the vagaries of the season meant that the Shows were very similar. For example, of the seventeen varieties of rhododendron shown on the Caerhays Stand, nine of them had been flowering in time for the early Show in 1968. This lateness in flowering has continued through the season and has really been a great blessing to the gardeners.

The Cornwall Garden Society continues to go from strength to strength. Membership stands at over 750. Entries were up by

ninety, but there was still an air of spaciousness in the hall. One very encouraging side was the strength of the Children's Classes and the enthusiasm that they engendered. Under the leadership of Captain Hicks, Mr. Nigel Holman, Mr. and Mrs. Albert Fleet, and Mr. Neil Treseder, the Show Director, morale was high and the organisation very efficient.

The chief disappointments were the absence of Commander Dorrien Smith's exhibits from Tresco, a display which is always greatly admired, and also the absence of a Stand from Mr. Trehane's Nursery. The stage was dominated by a fine display by Robert Veitch & Son, who have been such loyal supporters for the Show for many years. The exhibit of Treseder's Nursery was extremely well laid out and situated at the entrance. *Magnolia denudata*, *Camellia* 'Madame Le Bois' and *Rhododendron* 'Elizabeth' were three features of the Stand that particularly caught the eye.

The Show was nobly served by its judges. Mr. Michael Noble and Mr. Younger judged the shrubs, Mr. Puddle (who made a notable trip from Bodnant at supersonic speed) and Mr. Findlay judged the camellias, while Mr. Pearce and Mr. Wynniatt deliberated over the rhododendrons. Their great effort in all coming so far was greatly appreciated.

The judges considered the camellias well up to standard and they both seemed pleased at the large number of new varieties that were shown. The rhododendrons were thought to be of a very good standard and the judges considered *R.* 'Dot' to be the best hybrid shown.

The main R.H.S. awards were made as follows: R.H.S. Silver Gilt to National Trust (Lanhydrock), R.H.S. Silver Medal to the Truro Chrysanthemum Society, and the R.H.S. Bronze Medal went to the National Trust (Trelissick).

The main prize winner in the Camellia and Rhododendron Classes was Mrs. Johnstone of Trewithen, who won the Camellia Cup and the Mr. Charles Williams Cup. It is a great encouragement to those growing new camellias to see how well they grow at Trewithen. 'Auburn White', 'Drama Girl', and 'Mrs. D. W. Davis' thrive really well in the open and Mrs. Johnstone and the head gardener, Michael Taylor, are to be greatly congratulated for the way they showed the camellias. Mr. Nigel Holman showed a fine vase of *M. denudata* to win the Abbiss Cup.

The Camellia Classes as a whole were of a very high standard. The new and the old varieties competing for the honours for Class

PLATE 14—*Camellia* × *williamsii* 'J. C. Williams', a beautiful spray which was first in Class 70 of the Camellia Show on April 15 and 16, 1969, when entered by the Crown Estate Commissioners, The Great Park, Windsor (see p. 166)

PLATE 15—*Camellia* × *williamsii* 'Caerhays', A.M. April 29, 1969. Exhibited by Mr Julian Williams, Caerhays Castle, Cornwall (see p. 192)

41—six different camellias to include two or more species or hybrids—gave the judges 20 minutes of indecision. Mr. Nigel Holman of Chyverton won this Class, helped by a very fine bloom of 'Leonard Messel'. A new camellia entrant, Mrs. Martin of St. Austell, came third in this Class. With so many camellias being grown, it is disappointing that so few new exhibitors are coming forward.

It is interesting to see that the main prize winners seem to specialise in certain varieties. Lady Falmouth won with her superb 'Captain Rawes' in three Classes. The National Trust (Lanhydrock) carried away the honours in the Japonica Anemone Forms, Paeony Forms and Rose Forms. The *C.* 'Blackburniana' from this garden was particularly fine. Commander Colville was very successful with his simple *C. japonicas* and his *C. williamsii.* Outstanding blooms of 'Mildred Veitch' and 'E. G. Waterhouse', gained an award for Mr. Nigel Holman in the semi-double Williamsii Class, and for the hybrid, of whom *C. williamsii* was a parent. General Harrison showed a very fine unnamed single *C. reticulata.* Mrs. Kitson showed a striking spray of *japonica* to win her Class.

The Rhododendron Classes were of a high standard—especially the species. Class 49 for six species, one truss of each, was well up to R.H.S. standards. Mrs. Johnstone's very varied entry won. Her *R. sinogrande* and *R. delavayi* were notable. Lanhydrock won the Three Species Class with *meddianum*, *calophytum* and *arboreum. R. meddianum* always seems to be temperamental at Caerhays and to grow far better at Werrington and Lanhydrock. Sir Edward Bolitho won the Maddenii and Edgworthii Class with an excellent *R. johnstoneanum* with good broad leaf and good yellow centre, and also the Class for three different species, the best of which was his *R. irroratum*, which looked superb in the electric light. Lady Falmouth's spray of *R. arboreum* showed once again the supremacy of Tregothnan in the excellence of their *R. arboreums.* Colonel Colville gained the day with *R. russatum* and *racemosum.*

In the Hybrid Classes, honours were shared between Mrs. Copeland, Mr. Holman, and General Harrison. Mrs. Copeland gained seven out of twelve First Prizes in this section. The outstanding hybrids were 'Dot', 'Yvonne', 'Avalanche', 'Dignity', 'Wilhelmina', and 'Trelissick Salmon'. Major Magor was a very strong challenger in the Six Hybrid Class, with his 'Medea', 'Damaris' and 'Daphne's Selection'. In this Class, General Harrison also showed a fine bloom of 'Sir George Sampson', and in the Class for any hybrid between

two hybrids, General Harrison's 'Shepherd's Delight' was a worthy winner. To the writer's eye, however, the best hybrid in the Show was 'Peace', shown by Colonel Colville. Lord St. Levan gained the chief awards in the evergreen azalea section.

Mr. and Mrs. Williams of Penwarne were newcomers to the Show and the Stand they put up, gaining a Bronze Medal, was very much appreciated.

As for the Caerhays Stand, the non-rhododendrons were probably of more interest than the rhododendrons. They were shown in order to demonstrate the variety of shrubs that enjoy the same conditions as camellias and rhododendrons. Some of the many forms of *Pieris formosa* were shown, as well as the evergreen oaks. When the rhododendron season is on the wane and one is awaiting the *Eucryphias* probably the finest evergreen at Caerhays is *Quercus acuta*. Unfortunately this oak is very difficult to propagate, but it gives great value all through the year.

RHODODENDRON NOTES

Bark split in Rhododendrons

DIEBACK in rhododendrons is quite a common occurrence. Various factors may cause this and usually a thorough examination of the plant may find the reason. A frequent trouble-maker is honey fungus, *Armillaria mellea* which can either kill a whole shrub or just one branch of it from ground level. Other cases of dieback may be from failing to remove a label before the wire has been grown over by the stem, too wet or too dry conditions at the roots, too much consolidation of the soil by trampling over the roots, or by frost. Sometimes of course, dieback can occur from sheer old age, unsuitable soil, or even no apparent reason at all. Too many of these troubles are probably attributed to honey fungus.

In these notes, I am going to deal with the subject of frost which is probably the greatest bugbear of rhododendron growers in this country. We certainly get our fair share in eastern Scotland and particularly in low lying areas inland, damaging frost can strike in any month of the year except July and August. Far too much consideration is given to the question of exactly the number of degrees of frost a rhododendron can stand, at least in this country. Maybe in a continental climate where winter quickly changes into summer and summer into winter, with no alternating mild and cold spells, this true winter hardiness factor does hold good. But in Britain, with no really severe winter temperatures, that is below $-10°$ F, most of the rhododendrons rated H 3–4 (A to C on the old system) will stand as minimum a temperature as experienced in this country provided they are *absolutely* dormant and reasonably well sheltered. I would agree though, that very prolonged frost not far above 0° F can cause true winter damage, particularly to flower buds, but with us at any rate, long winters with fairly severe weather, followed by a late spring and no late frosts, always gives our best displays, with few pips spoilt. Examples of this were 1963 and 1969. A rare exception occurred in Northumberland last winter (1968–9), when zero temperatures did cause real winter damage. But this was at its worst in gardens exposed to the continuous east winds, so it is hard to say to what extent the frost was responsible. It is the combination of frost and wind which has such a desiccating effect on evergreen

Photos: P. A. Cox

Fig. 39—a. (*top left*) Bark split in *Rhododendron beanianum* var. *compactum* showing young shoots which have grown below the split (see p. 173).

b. (*top right*) Main stem of *R.* 'Cowslip' bound up with tape. This plant is still quite healthy over a year after being split.

c. (*above left*) *R.* 'Elizabeth' showing severe damage near ground level.

d. (*above right*) *R. beanianum* var. *compactum* showing badly split shoots and resultant death.

e. (*below left*) *R. euchaites*. Bound and unbound splits. Parts of this plant died.

f. (*below right*) Very severe damage in *R. beanianum* var. *compactum*. This plant died.


Fig. 39—g. (*above left*) *R.* 'May Day' showing severe splitting at base of main stem. Young growth from base has received autumn frost damage.
h. (*above right*) (The same plant as in g.) *R.* 'May Day' showing the whole of the original plant killed by severe bark split. Young growth coming from the base has received autumn frost damage seven months later.

plants. It is the early autumn and late spring frosts which, to my mind, create most of the real damage to the actual plant, let alone flower buds.

In the autumn, virtually any frost before mid-November is liable to destroy some late growth, and severe frost in early spring after early March, provided it has been preceded by a very mild spell, can harm buds, shoots and even whole plants. In other words, any flow of sap, accompanied by hard frost gives trouble and the chief trouble apart from frosted flower buds, leaf buds and growth, is bark split.

Spring of last year, 1968, gave us the worst attack of this I have ever known, when we had a very mild winter with the season a good month in advance of average, followed by ten days of frost ranging from 8–12° F below freezing point. In some cases, whole plants had their bark completely removed from the wood, right from ground level to the tip of two-year-old wood. The worst examples of this were a plant of each of *R. cinnabarinum* var. *purpurellum* and *R. beanianum* var. *compactum*. The seemingly reliable R. 'May Day' was so badly split that several young plants died back to ground level, even though to all appearances, growth and flower buds were still dormant (Fig. 39 g and h above).

Many species and hybrids seem to vary in their ability to heal up and recover. Young plants of *R. yunnanense* often get split with us but rarely is there any actual dieback. Older ones did lose whole branches. Even the rock-hardy *R. dauricum* from Siberia, had splits but no dieback has yet taken place. In many cases, actual death of branches is starting to appear now in

April, a year after last April's frosts, which makes people think, wrongly, that this last rather severe winter of 1968–69 has been responsible. Very likely it will continue to show up all through the summer. Before actual dieback takes place, foliage often turns yellow and looks sickly. The most serious splitting is near ground level as this can kill whole plants.

Little can be done apparently, to prevent this splitting, although one suspects that too much feeding, especially by concentrated fertilisers, may increase the damage. Very early localities for their part of the country, like ours here, are naturally all the more liable to suffer from unseasonable frosts. Our own experiences are difficult to explain. In two cases, oldish plants in the wood were split from top to toe and died, while young ones of these in the nursery in fuller exposure, were undamaged.

I spent hours wrapping sticky tape around the affected parts, but unfortunately I did not do this until about six weeks after the frost had taken place and the bark had dried out too much to heal properly. Obviously it should have been done much sooner. Unfortunately the bark only starts to curl back when it is getting dry, and so the damage is not very readily noticeable beforehand without close examination. Tape should help considerably if put on at once.

Dieback from bark split would be expected to appear mostly in early and late growing varieties, but this is not necessarily so, as in the case of R. 'May Day'. The very suspect *R. griersonianum* hybrids often suffered badly but not all, as the late flowering R. 'Vanessa' came through unscathed. The Triflorum Series were hard hit especially *R. augustinii* and *R. lutescens*, but little dieback has taken place so far amongst these. Other plants, many of doubtful hardiness such as *R. mollyanum*, *R. euchaites*, *R. glischroides*, and *R. crassum* were hit, but also apparently hardy species like *R. campanulatum* and *R. callimorphum*.

Glendoick, Perth PETER A. COX

THE BLACK-EYED COMEBACK

More people are seeing more rhododendrons in greater variety in flower at garden centres. This wider choice, easily available, is causing a change in fashion.

Mauves and whites are becoming more popular than they were a few years ago, but the big swing has been towards flowers with a

prominent blotch or eye. Many of these are old varieties and some have been almost lost to cultivation.

They have a great advantage over many modern rhododendrons. They are more hardy and some are late flowering, missing the spring frosts.

I first discovered this in my own garden when I bought a house at Eversley in Hampshire, which was surrounded by large old-fashioned rhododendrons planted many years ago. I left them in place and added new and up-to-date varieties. But I found, over the years, that the old rhododendrons gave a better show, in all weathers, then the more recent introductions.

One big plant did particularly well. It had striking flowers in rich crimson with a deep red blotch on the upper petal. It had been given up as out-dated several years ago at Bagshot, but the rhododendron foreman remembered the name—'Marchioness of Lansdowne'.

Records of sales at Waterers garden centres at Twyford and Bagshot, and at their associated companies, Sunningdale Nurseries and Dobbies of Edinburgh, showed that many other gardeners shared my taste for these deeply blotched rhododendrons that flowered so well after all danger of frost was past.

I decided that if these were the rhododendrons that most gardeners wanted, then Waterers would grow and sell them once again.

Accordingly, I called a meeting of rhododendron specialists at the Bagshot nursery. It was attended by Mr. Gerald Pinckney, former Chairman and Managing Director of the company and Mr. Percy Wiseman, Manager of the Bagshot Nursery from 1925 to 1963. They contributed their considerable knowledge of these good old varieties. They went over the lists of dark-eyed beauties, once relegated to obscurity but now to make a big comeback through popular demand.

Some are still grown. 'Sappho', the white with a black eye, is the best known. 'A. Bedford', a mauve with a black eye is another. 'Duchess of Teck', raised and introduced by the firm in 1892, has rosy flowers with a bronze blotch, and a beautiful habit of growth, compact and shapely, with dark green, upstanding leaves.

Due for immediate revival is 'Viscount Powerscourt', perhaps the most striking of all the blotched rhododendrons, raised by Waterers in 1906 and named after Lord Powerscourt, who created one of the most beautiful gardens in Ireland. And another that will soon become as popular as 'Pink Pearl' (also raised by Waterers)

is 'Mrs. Tom H. Lowinsky', a white with a bronze flare on petals that fold and curve in the manner of an orchid.

This new move forward, for old-time rhododendrons, may prove to be as important to gardening in Great Britain as was the revival of interest in old-fashioned roses. Some big old plant growing in a neglected garden, somewhere, may be the rhododendron of the future.

(Note: It is not quite certain where the blotch on rhododendron flowers came from—but some forms of rhododendrons, *arboreum* and *maximum*, two of the species used by the early hybridists, are heavily spotted. These spots may have fused as a result of cross-pollination and, later, further crosses were made to bring out this characteristic.)

Messrs. Waterers, Bagshot, Surrey DAVID BARNES

RHODODENDRONS AND LIME

So often it has been said that rhododendrons cannot be grown in alkaline soil. I have been told at the R.H.S. Rhododendron Shows that either they cannot be grown at all and an attempt to do so was not worth while or that they would soon succumb to chlorosis whatever treatment was given. Nurserymen in Surrey and elsewhere, with the risk of losing sales, confess the chances of survival is remote. Here in the Fens where the soil has a pH of 7·8 one is told, rather brusquely perhaps, that they cannot be grown here or that those that live remain almost stationary in growth year after year and often the comment is followed by a lengthy description of the numerous colours they have seen when on holiday.

It would not be credited if they were told that they have been grown here for several years and the varied collection is added to every year, not only hardy hybrids but woodland varieties of grades A, B and C, alpines, species and tree forms together with Knap Hill and Exbury azaleas and a large number, e.g. azaleas—without resorting to the use of sequestrene. With a few exceptions the leaves are entirely free of chlorosis and when in some cases plants have arrived with inter-veinal yellowing, more likely to be due though to magnesium deficiency, they very quickly improve. When considered necessary, mains water of 7·2 pH av. with a very high calcium to magnesium ratio has been sprayed on them in quantity. Growth this year has been very good, particularly where flowering has been limited in the case of the hardy hybrids due to the lack of good light last July, new growth has extended 6 to 9

inches. (Interesting to note that earlier flowering plants had a full covering of flowers and some shy flowerers flowered for the first time.) With suitable care and treatment heathers are successfully grown. It must be acknowledged that considerable encouragement has been given by Dr. Henry Todd of Edinburgh University.

Is it not one of the absorbing interests of horticulture, the contradictions of popular and well-founded beliefs? It is pleasing to see that Sandringham House in Norfolk has now planted out a number of rhododendrons and azaleas in the wooded grounds, additional to the thousands of old ponticums on the Royal Estate.

Quaker Lane, J. BROWNLOW HEYWOOD
Wisbech, Cambs.

A NOTE ON THE RHODODENDRONS OF AFGHANISTAN

Afghanistan is not a country one associates with the genus *Rhododendron*. One thinks rather of thistles and spiny cushion plants growing on hot sun-baked slopes. But Afghanistan is a country of many contrasts and surprises. In the eastern regions the monsoons have a certain influence on the vegetation and here several Himalayan species reach their westernmost limit. It is in this part of the country, in the districts of Nuristan and Paktiva, that Afghanistan's two species of *Rhododendron* are to be found: *R. collettianum* Aitch. & Hemsl. and *R. afghanicum* Aitch. & Hemsl.

Both these species were discovered by Surgeon-Major J. E. T. Aitchison in 1879* when he was attached as botanist to the military column under the overall command of General Roberts which was to advance from the Kurram valley, in present-day W. Pakistan, towards Kabul. Shortly after he joined the force, in April of that year, hostilities stopped in this the second Afghan war and Aitchison was able to investigate the upper Kurram valley and Safed Kuh in conditions of at least nominal peace.

Since the original discovery of these interesting two Rhododendrons, neither appears to have been re-collected in this area until this year (1969). *R. collettianum* has been found elsewhere in

*At Kew there is a herbarium specimen of *R. collettianum* (named after Aitchison's colleague Major, later General, Collett) collected apparently by Griffith in 1840 during the first Afghan war which antedates that of Aitchison by almost 40 years. The label states "Sufaid (Safed) Koh, nr. Khuffah". We have not been able to trace this locality and from Griffith's itinerary notes there is no indication that he collected on Safed Kuh.

Afghanistan in Nuristan and also in Chitral, but to our knowledge nobody has ever found *R. afghanicum* again.

When we decided to revisit Afghanistan in 1969, we were particularly anxious to collect these two species, the more so as both of us were connected to botanic gardens with more than a passing interest in the genus. We were therefore very happy that in June we were able to join Dr. S. W. Breckle, then teaching Botany at Kabul University, and his student assistant Mohammad Reshad, on an excursion to Safed Kuh. We spent a pleasant week botanising in the region of Mt. Sikaram (15,600 feet), one of Aitchison's happy hunting grounds, where he found several new species including the two Rhododendrons. This region is very close indeed to the frontier between W. Pakistan and Afghanistan, and Aitchison's original locality Shendtoi for *R. afghanicum* is on the Pakistan side of the frontier so, in fact, this species was not collected by him in what is present-day Afghanistan.

We stayed one night with the German Forestry team working at Kotkai and then, after loading our equipment on to two mules and a donkey, set off up the slopes of Sikaram with its snow-capped peaks far above us. The lower slopes are densely covered with coniferous forests giving the landscape a completely different aspect from the rest of Afghanistan. Cedar, pine, spruce, silver-fir and juniper are all common. As we climbed through the forest, the trees thinned out until at about 11,500 feet only *Juniperus communis* s.l. and its dwarf variety or subspecies *nana*, together with some scattered trees of *Picea smithiana*, remained. At about this altitude we camped and the following morning climbed slightly higher. Above a small limestone gorge where *Bergenia stracheyi*, *Saxifraga afghanica* and magnificent flowering cushions of *Paraquilegia grandiflora* were growing, we reached a steep north-facing limestone rocky slope dominated by dense thickets of *R. collettianum*. These thickets, about 3 feet high and almost impenetrable in places, were in full flower on June 19. In bud the flowers are pinkish becoming white with a pinkish tube as they open; the corollas are tubular with a spreading-erect limb similar to the other members of the Anthopogon series (see Fig. 40). Although it was an abundant shrub on this slope, we never saw it elsewhere and it may be rather local in its distribution.

After climbing Mt. Sikaram and re-collecting many of Aitchison's plants we returned to our camp and asked some local nomads, through Mohammad Reshad, if they knew another shrub similar to *R. collettianum* but that grew lower down, had narrower

leaves and greenish white flowers. They replied that they knew the plant we meant and even added that it was a poisonous shrub fatal to sheep if they grazed on it—a fact mentioned by Aitchison. They said they would bring some specimens of it for us and, true to their word, we were later presented with some branches of *R. afghanicum* collected, as we learned, on the Pakistan side of the frontier. While we were most anxious to see the plant in its native habitat, we were also a little concerned about the wisdom of making an illegal frontier crossing for this reason. However, while we discussed this, our quandary was resolved by another nomad who said he could show it to us on the Afghan side of the frontier. Thus spared being the cause of an "incident" we were led into the forest by our guides, each armed with a rifle. We headed down towards a dark patch of forest consisting of a pure dense stand of *Abies spectabilis*, and here, at 10,000 feet, on shaded north-facing limestone cliffs and rocks, was *R. afghanicum*. In addition to the *Abies*, other trees and shrubs that grew here were *Pinus wallichiana*, *Cedrus deodara*, *Syringa afghanica*, *Spiraea*, *Berberis*, *Viburnum cotinifolium;* herbaceous plants included *Androsace himalaica*, *Thlaspi*, *Lilium* cf. *polyphyllum*, *Wulfenia amherstiana* and, on the cliff walls, *Bergenia stracheyi* and *Dionysia tapetodes*. In habit, *R. afghanicum* is rather straggly, sometimes trailing down rock walls, with prostrate-ascending branches usually about 1 foot high. When we saw it on June 22 most of the flowers on the characteristic, rather elongated, racemes were still in tight bud and only a few had opened to show the tubular greenish white corollas with flat open limbs. Although on Sikaram, both *Rhododendron* species were growing on a limestone substrate, much humus was present among the rootstocks and, in fact, they probably were growing in a somewhat acidic soil.

R. afghanicum is not a great beauty in flower or foliage and a rank outsider to win an Award of Merit. But for the botanist it is a very interesting plant. Taxonomically very isolated in the genus, its closest known ally is *R. hanceanum;* together they are placed in the bitypic subseries *Hanceanum* of series *Triflorum*. Somewhat similar in general facies they are very distant geographically, *R. hanceanum* being only known from W. Szechuan in China. It was therefore of special interest, when on a subsequent journey in another part of Afghanistan, that one of us (P. W.), together with Lars Ekberg, also from the Göteborg Botanic Garden, found *R. afghanicum* in an entirely new locality. This was in the Alishang valley in the province of Laghman, north-east of Kabul. Here are

Photos: Ian Hedge

Fig. 40—A hillside of *Rhododendron collettianum* on Mt. Sikaram in Afghanistan (see p. 178).

Fig. 41—*Rhododendron collettianum* W. 8975 in Afghanistan.

Fig. 42—Total distribution of Rhododendron collettianum ● and R. afghanicum ✱. Dotted areas within Afghanistan indicate areas above 2,400 m.s.l.

some of the westernmost extensions of the coniferous forests that are well developed in eastern Nuristan, and in the upper part of this valley are quite dense forests of *Pinus gerardiana* and *P. wallichiana*. Mohammad Reshad, who had been with us on Sikaram and was also on the trip to Alishang, again asked some local people about a small poisonous shrub with white flowers and in reply was told that such a plant grew in several places nearby. In the evening they brought sterile branches and there was no doubt that there were from a *Rhododendron*. The next day, July 15, was long and strenuous and in the early evening the locality they had mentioned had still not been reached, but Lars Ekberg decided to climb higher and returned just before darkness fell, sweating but happy, with flowering branches of *R. afghanicum* and several large plants in a bag. The flowers were pure white and were somewhat larger than the Aitchison flowering material gathered on Sikaram. As in the latter locality, *R. afghanicum* was growing on ledges and crevices on steep and rather inaccessible cliff walls. At Alishang, the rock was apparently gneiss and south-east facing; the altitude was about 9,500 feet.

Both *R. collettianum* and *R. afghanicum* were introduced into cultivation by Aitchison who collected seed of them in 1880. *R. collettianum* flowered at Kew in 1888 and was illustrated in the *Botanical Magazine* of that year, t. 7019; *R. afghanicum* was illustrated in the *Botanical Magazine* of 1938, t. 8907. Both species appear to have been grown in several gardens throughout Britain for several decades and were included in the earlier editions of the *Rhododendron 'Green Books'* until immediately before the last war. As far as is known, all the plants from this stock are now lost.

When we collected the two species on Sikaram and *R. afghanicum* at Alishang, it was too early for seed and all the previous year's capsules were empty. However, we did collect some living plants and although we had great difficulty in keeping them alive in the summer heat of Kabul, at least some of them now look reasonably happy at Edinburgh and Göteborg.

IAN HEDGE AND PER WENDELBO

KURUME AZALEA 'HINOMAYO'

'Hinomayo' is still one of the most popular evergeen azaleas in English gardens, no collection of Kurume azaleas is complete without this variety. Nobody would deny this name is of

Japanese origin and, in literature, it is described as having been found growing in an Emperor's garden by a Dutch nurseryman, and introduced by him to European gardens. As I saw a very old specimen of 'Hinomayo' in Sir Giles Loder's garden, supposed to be nearly one hundred years old, the introduction must have been made nearly one hundred years ago.

In spite of its fame and proved merits in English gardens it is very curious that no Japanese know the name—the spelling, Hinomayo, is not comprehensible to the Japanese. Several years ago Mr. L. Riggall visited Japan to look for Kurume varieties which were missing in his garden among the Wilson's fifty varieties. He had not been able to find them in English gardens, and thought he could find them in Japan. I helped him while he was in Japan, at the time when Kurume varieties were in full bloom wherever we travelled. We visited all noteworthy old gardens.

Mr. Riggall and I also tried to find a Kurume azalea, which looked identical with 'Hinomayo', wherever we went. Mr. Riggall also visited the Kurume area for the same purpose and searched extensively. But neither of us could find any plant, whether old or young, similar to 'Hinomayo'.

Before the war there was a villa belonging to Mr. Iwasaki on Mt. Hakone, at about 2,300 feet above sea level, overlooking his large garden and the lake of Ashi. He had there a very large collection of evergreen azaleas and the collection used to provide a glorious sight every spring. I once saw the collection before the war. After the war the property was sold but the collection was not destroyed. A leisure hotel called "Yama-no-Hotel" was built and now the azalea collection has become very familiar to the general public. I dropped in at this hotel three years ago and checked the names of the azaleas grown in the garden. I was shocked to see there labels written as "Hinomayo", because I had failed to find in Japan a plant identical with 'Hinomayo'. It was then that I suspected that 'Hinomayo' is a mis-spelling of "Hinamoyo". The latter name is quite comprehensible to the Japanese. This past spring I visited the hotel again and saw the "Hinamoyo" plants in bloom. I was able to confirm that "Hinamoyo" is identical to the English 'Hinomayo'. The Japanese feel quite distressed when sounds which are difficult to understand, are heard. The comprehensible name "Hinamoyo" sounds more smooth to the Japanese.

"Hinamoyo" means the colour pattern of the special dolls used only for the doll festival regularly held in early spring for younger

girls in every home and is a good name to associate with the gayful salmon-pink flowers.

"Hinamoyo" long disappeared in Japan from cultivation probably because it was weak in constitution under the conditions of Japanese lowland hot summer climates. The villa area on Mt. Hakone is generally 8 degrees F cooler than our lowland areas and may be more like the English summer. I assume this is the very reason why "Hinamoyo" could survive in this garden, whereas in other places it was short-lived and perished.

"Hinamoyo" is a very old variety and may have been just a good colour selection of wild *Rhododendron sataense*, from which Kurume varieties were mainly derived. The present varieties are more robust and stronger in growth under the Japanese hot summer lowland conditions and have superseded old weak varieties. But this does not apply to English gardens, where cooler summer conditions are quite different and sometimes contrary.

I do not intend to correct now the mis-spelling which was accepted without any reason for nearly a hundred years. But when you name this azalea to any Japanese visitors, please kindly take the trouble to call it "Hinamoyo". They would probably feel more affection towards you.

Japan K. WADA

Photo: Ernest Crowson of J. E. Downward

Fig. 43—Rhododendron 'Muy Lindo', A.M. June 10, 1969. Exhibited by Captain Collingwood Ingram (see p. 189).

RHODODENDRONS AND CAMELLIAS WHICH HAVE RECEIVED AWARDS IN 1969

Rhododendron 'Curlew', shown as un-named hybrid (R. ludlowii × R. fletcherianum). F.C.C. May 19, 1969, as a hardy flowering plant. (Votes: unanimous). Flowers openly campanulate, five-lobed, 1 inch long and 2 inches in diameter, carried singly or in two- and three-flowered trusses. Flower colour R.H.S. Colour Chart, Yellow-Green Group 154D, the outer corolla with deeper shades of 154C. The upper throat is spotted and marked with greenish brown. Stamens ten, anthers pale brown, variable in length, included within corolla. Filaments pale green, densely hairy at base. Style pale green held free of corolla; stigma dark green. Calyx five joined, deeply divided lobes, green, variable in length up to $\frac{5}{16}$ inch long, fringed with long hairs. Pedicel green, calyx and pedicel sparsely covered with glandular hairs. Leaves narrowly obovate to obovate, up to $1\frac{1}{2}$ inches long and $\frac{5}{8}$ inch across. Upper surface dark green, reverse slightly paler and sparingly covered with light brown scaly indumentum. Petiole short, flattened, 2 mm. in length, slightly scaly. The plant exhibited was growing in a 14-inch pan and measured 8 inches in height and 17 inches in diameter. Crossed by Peter A. Cox, raised and exhibited by Messrs. E. H. M. and P. A. Cox, Glendoick Gardens, Perth, Scotland (Fig. 8).

Rhododendron dauricum 'Midwinter'. F.C.C. February 4, 1969, as a hardy flowering plant. A semi-deciduous plant of densely twiggy habit. Flowers borne in terminal clusters of two to six on the specimen shown. Flowers rotate, flattened in appearance, with five spreading lobes. Individual flowers $1\frac{1}{5}$ inches in diameter and $\frac{7}{10}$ inch long. Flower colour R.H.S. Colour Chart, Red Purple Group 72A; outer corolla covered with short fine hairs; stamens ten in number, variable in length, included within and free from corolla; filament colour similar to that of corolla, hairy at base. Anthers pale brown. Calyx green, rudimentary. Pedicel slender, 6 mm. long. Leaf blades on specimen shown $1\frac{2}{5}$ inches long and $\frac{3}{5}$ inch wide, narrowly elliptic to elliptic, dark green above, paler underneath; both surfaces lightly covered with fine scaly indumentum. Petiole crescent-shaped in cross section,

slightly scaly, up to 5 mm. long. Collector not known; exhibited by Crown Estate Commissioners, Windsor Great Park, Windsor, Berks. (Pl. 12).

Rhododendron anthopogon 'Betty Graham' L. & S. 1091. A.M. April 29, 1969, as a hardy flowering plant. Flowers narrowly tubular, comprising five joined lobes $\frac{7}{10}$ inch long (tube up to $\frac{3}{10}$ inch long) and $\frac{6}{10}$ inch in diameter. Truss small, tight, eight to ten-flowered, up to 1 inch across. Flowers strongly fragrant, colour R.H.S. Colour Chart, Red-Purple Group 61C, deepening towards base of corolla to 60B. Inner floret tube densely hairy. Stamens ten, of equal length, pale brown anthers and filaments, held within tube, up to 4 mm. long. Stigma widely obconical, flattened, green, 1 mm. long. Calyx five regular lobes, joined at base, up to 3 mm. in length, greenish brown, scaly. Each lobe fringed with hairs and flushed purple. Pedicel 3 mm. long, dark brown/purple. Leaves aromatic, on specimen shown up to $1\frac{2}{5}$ inches long and 1 inch broad, obovate-elliptic, dark green above, under-surface densely covered with dark brown, scaly indumentum. Petioles $\frac{1}{5}$ inch long, stout, with flattened upper surface. Collected by Ludlow and Sherriff, exhibited by E. H. M. & P. A. Cox.

Rhododendron 'Costa del Sol', shown as Joanita (R. caloxanthum × R. lacteum). A.M. April 29, 1969, as a hardy flowering plant. Flowers openly campanulate, five-lobed, 2 inches long and $2\frac{1}{2}$ inches in diameter, carried in loose trusses of fourteen to sixteen flowers per truss on the specimen exhibited. Trusses up to 16 inches across. Flower colour R.H.S. Colour Chart, Yellow Group 10B, deepening towards the base of the outer corolla to Yellow Group 11A. Deep in the upper part of the throat, there is a slight flush of Red Group 46A. On some flowers, there is a faint orange/red flushing or streaking of the outer corolla on the central portion of the upper three joined sepals. Stamens ten, dark brown anthered, held within corolla. Style yellow, of equal length with corolla. Stigma green. Calyx five distinct joined lobes, variable in length up to 3 mm., green with the two upper ones edged red. Pedicels up to $1\frac{1}{2}$ inches long, upper surface purplish-brown. Pedicel and calyx lightly covered with fine, woolly hairs. Leaf blades on specimen shown up to $4\frac{3}{4}$ inches long and $2\frac{1}{4}$ inches broad, elliptic, dark green above, under surface covered, except for mid-rib, with very fine, pale brown indumentum. Leaf bases subcordate to oblique. Petioles up to $\frac{3}{4}$ inches long, upper surface flattened, almost free of indumentum. Raised by Lionel de Rothschild Esq., Inchmery House, Exbury, Southampton (Fig. 2).

Rhododendron fargesii 'Budget Farthing'. A.M. April 15, 1969, as a hardy flowering plant. Flowers openly campanulate, seven-lobed, $2\frac{1}{4}$ inches long and $2\frac{1}{2}$ inches wide. Trusses eight- or nine-flowered, measuring up to $5\frac{1}{2}$ inches across on specimens exhibited. Flower colour basically white but suffused with R.H.S. Colour Chart, Red-Purple Group 69A. Flower buds a darker Red-Purple 70B, and this colour is retained in the mature flower in the form of numerous small spots/markings on upper throat. Stamens fourteen in number, variable in length, included within corolla, filaments white, anthers brown, style pale yellow, included within corolla. Calyx seven-lobed, rudimentary. Pedicels up to $\frac{3}{5}$ inch long, flushed a dark Red-Purple, ovary conical, dark green. Calyx, pedicel and ovary covered with red glandular hairs. Leaf blades on specimen shown up to 3 inches long and 2 inches broad, broadly elliptic, dark green above, glaucous below, glabrous. Petioles up to $1\frac{1}{4}$ inches long, slender, flushed red towards base and almost round in cross-section (a form of *R. fargesii* with rose pink flowers with dark crimson dots on the inside received an Award of Merit in 1926 when exhibited by G. W. E. Loder of Ardingly). Raised by Henry, Lord Aberconway. Exhibited by Lord Aberconway and The National Trust, Bodnant, Tal-y-Cafn, Colwyn Bay, Denbighshire, N. Wales.

Rhododendron ferrugineum album. A.M. June 10, 1969, as a hardy flowering plant (Votes: 10 for, 0 against). Flowers tubular funnel-shaped, six-lobed, $\frac{7}{10}$ inch long and $\frac{7}{10}$ inch across, carried in small terminal trusses, ten or eleven flowers per truss. Flower colour R.H.S. Colour Chart, White Group 155D. Stamens ten, slightly variable in length, held within corolla. Filaments white, hairy. Anthers brown; style short, stout, white with green stigma. Calyx rudimentary; pedicels green, variable in length up to $\frac{3}{5}$ inch. Pedicel, calyx and outer corolla loosely scaly. Inner corolla hairy. Leaves up to $1\frac{1}{2}$ inches long and $\frac{2}{5}$ inch across, oblanceolate. Under surface covered with brown, scaly indumentum. Petiole $\frac{2}{5}$ inch long, lightly scaly. Collector not known, raised and exhibited by Crown Estate Commissioners (Fig. 20).

Rhododendron konori 'Eleanor Black' (Seedling No. B97). A.M. July 15, 1969, as a flowering plant for the cool greenhouse. A tender species from New Guinea. The specimen shown was a single three-flowered truss. The flowers are tubular, funnel-shaped, six- or seven-lobed and measure up to $3\frac{3}{4}$ inches long and 4 inches across. Colour is basically white, flushed strongly interveinally with R.H.S. Colour Chart, Red Group 55B, deepening in the

throat to a uniform Red Group 55A. Traces of this darker red are occasionally present on the extreme edges of the deeply divided petals. Stamens twelve to fourteen, variable in length and held within corolla. Filaments flushed pink, lightly hairy, anthers orange. Style short, reddish, stigma green. Calyx rudimentary, red and fringed with colourless scales. These also lightly cover the outer corolla. Bud scales persistent. Pedicel up to $\frac{7}{10}$ inch long, stout, red, covered with pale brown scales. Leaves broadly elliptic, $2\frac{3}{4}$ inches long and $1\frac{3}{4}$ inches across, rounded, upper surface a dull dark green, lower surface paler green; both leaf surfaces apparently covered with minute green pustules, giving the surfaces a roughened appearance. Central vein fleshy and prominent on reverse. Petiole $\frac{3}{5}$ inch long, rounded in cross-section. Collected, raised and exhibited by Michael Black Esq., Green Bank, Grasmere, Westmorland (Pl. 8 and Fig. 27).

Rhododendron lepidostylum. A.M. June 24, 1969, as a hardy foliage plant (Votes: 6 for, 1 against). A compact shrub, up to about 3 feet, the yellow flowers often being hidden by foliage. Leaves up to $1\frac{1}{2}$ inches long and almost 1 inch broad, ovate to obovate, retaining for most of the year a fine bluish-green colouring of the upper leaf surface: under surface of leaf paler. Leaf margins setulose, with the long bristly hairs densely covering petioles and stem and lightly scattered over the under surface of the leaf and along the mid-rib. Petioles up to 1 mm. in length. Petioles, stems and under surface of leaves freely covered with yellowish-green scaly indumentum. Foliage has a pungent odour when crushed. Flowers single or in pairs widely funnel-shape, about 1 inch long and $1\frac{1}{2}$ inches across. Five joined petals, the upper three joined at about one-third of their length from the corolla rim, the lower two at about two-thirds. Flower colour close to R.H.S. Colour Chart, Green-Yellow Group 1C with the three upper petals strongly marked with Yellow-Green Group 152C. Stamens ten, irregular in length, included within corolla, anthers dark brown, filaments green. Style held free of corolla. Style and stigma yellowish-green. Calyx rudimentary, five joined irregular lobes up to 3 mm. long, densely bristly and lightly scaly. Outer corolla lightly bristly and scaly towards base. Petioles slender, up to $\frac{9}{10}$ inch long, lightly bristly. Collector not known. Raised and exhibited by Captain Collingwood Ingram, F.L.S., V.M.H., The Grange, Benenden, Cranbrook, Kent (Fig. 23).

Rhododendron lindleyi 'Geordie Sherriff'. A.M. May 19, 1969, as a hardy flowering plant (Votes: unanimous). Flowers tubular-

funnel shape, strongly fragrant, five-lobed and measuring 3 inches long and 3 inches across. Trusses six- or seven-flowered. Flower colour white but outer corolla strongly flushed with R.H.S. Colour Chart, Red-Purple Group 63A. The colour is strongest on the uppermost petals, on the lowest, it takes the form of a paler central bar. The upper lobe is strongly stained with greenish-yellow at the base. The base of the outer corolla is fairly densely covered with red scaly indumentum. Calyx five joined sepals up to $\frac{9}{16}$ inches in length, flushed red and fringed with fine hairs. Petiole $\frac{3}{4}$ inch long, rounded in cross-section, flushed red, covered with red and colourless scaly indumentum. Leaves $4\frac{1}{4}$ inches long and $1\frac{3}{4}$ inches across, elliptic, thin, undulate. Upper leaf surface dark green, under surface glaucous, with prominent veins, lightly covered with brown scaly indumentum. Petiole $\frac{7}{8}$ inches long, rounded in cross-section, lightly scaly. Raised and exhibited by Messrs. A. C. & J. F. A. Gibson, Glenarn, Rhu, Dunbartonshire, Scotland (Fig. 34).

Rhododendron 'Muy Lindo' (R. 'Decsoul' × R. 'Isabella'). A.M. June 10, 1969, as a hardy flowering plant (Votes: 10 for, 0 against). Flowers widely funnel-campanulate, fragrant, seven-lobed, $3\frac{1}{2}$ inches long and $5\frac{1}{4}$ inches across. Trusses elongated, with ten to fourteen flowers per truss. Flower colour flushed pink in bud opening to a clear R.H.S. Colour Chart, White Group 155D. Stamens sixteen, variable in length and held within corolla. Filaments white, anthers pale brown. Style pale green, glandular, of equal length. Stigma slightly darker. Calyx green, seven irregular deeply divided lobes up to 10 mm. in length, the two upper lobes reflexed. Pedicel stout, green, rounded in cross-section, up to $1\frac{1}{2}$ inches in length. Leaves narrowly elliptic, 11 inches long and 3 inches across, dark green above, reverse paler. Petiole rounded, $1\frac{1}{2}$ inches in length. Crossed, raised and exhibited by Captain Collingwood Ingram, F.L.S., V.M.H. (Fig. 43).

Rhododendron 'Nestor' shown as un-named hybrid (R. barbatum × R. thomsonii), A.M. 15 April, 1969, (Votes: 16 for, 0 against). Flowers campanulate, 5 lobed, 2 inches long and $2\frac{1}{2}$ inches in diameter. Trusses round, compact, 13 flowered, 5 inches across. Flower colour R.H.S. Colour Chart Red Group 53B with a few small darker markings on the upper throat, near to the rim of the corolla. Stamens 10, variable in length, included within corolla, anthers dark brown, filaments white, tinged red at base, the longest almost 2 inches. Ovary $\frac{1}{5}$ inch long, conical. Style included within corolla. Calyx unevenly 5 lobed, up to $\frac{3}{10}$ inch long, glabrous,

colour Red Group 51A. Pedicels pale green, up to ¾ inch long, nectaries large. Leaf blades on specimen shown 5 inches long and 2½ inches wide, elliptic, rounded and auricled at base, tip mucronate, glabrous, dark green above, paler beneath. Pedicel ⅘ inch long, with a few glandular hairs on flattened upper surface. Raised by Sir Edmund Loder. Exhibited by The Hon. H. E. Boscawen, The High Beeches, Handcross, Sussex.

Rhododendron rude 'Frank Kingdon Ward' as a hardy flowering plant (Votes: 18 for, 6 against). Flowers open-campanulate, seven-lobed, 1½ inches long and 3 inches across, carried in rather loose, pendant trusses of up to sixteen flowers per truss. Flower colour basically white but with the outer corolla strongly stained with R.H.S. Colour Chart, Red-Purple Group 68A—the colouring being in the form of bar of colour along the centre of each joined petal, suffusing the inner corolla with softer shades of red-purple, the shading rather more concentrated towards the lip of each petal. The three upper joined petals are finely spotted and marked with a darker shade of red-purple close to 67A. Stamens fourteen, brown anthered, slightly variable in length: filaments white, style greenish white slightly longer than stamens. Stigma green, covered with red glandular hairs. Calyx rudimentary, seven joined segments, covered with red glandular hairs. Pedicel ¾ inch long, green. Leaves oblanceolate, acuminate, 7 inches long and 2 inches across, slightly reflex, upper surface pale green, covered with coarse, yellowish-green hairs, reverse with prominent hair-covered veins. Petiole ⅗ inch long, stout, densely covered with long glandular hairs. Raised and exhibited by Messrs. A. C. & J. F. A. Gibson (Fig. 21).

Rhododendron vaseyi 'Suva'. A.M. May 19, 1969, as a hardy flowering plant (Votes: unanimous). *R. vaseyi* is a deciduous species—Series azalea—with the flowers opening before the leaves. On the specimen shown, the flowers were widely funnel shape, up to 2 inches across and carried in numerous six- or seven-flowered clusters. Colour in bud is R.H.S. Colour Chart, Red-Purple Group 62A, paling on opening to 62C. The throat is almost white with an occasional very sparse spotting with dark red-purple. Stamens six, anthers dark brown, filaments white. Style pale green, stigma darker. Calyx green fringed with fine glandular hairs. Pedicel ⅞ inch long, sparsely covered with short fine hairs. Raised by the late Lionel de Rothschild, exhibited by Edmund de Rothschild Esq. (Fig. 3).

Rhododendron 'Belle of Tremeer' (R. augustinii? × R. rigidum)

P.C. April 29, 1969, as a hardy flowering plant (Votes: 15 for, 0 against). Crossed, raised and exhibited by Major General E. G. W. W. Harrison, C.B., C.B.E., M.C., Tremeer, St. Tudy, Bodmin, Cornwall (Fig. 6).

Rhododendron 'Farther' (R. fargesii × R. morii) P.C. April 1, 1969, as a hardy flowering plant (Votes: 10 for, 4 against). Hybridised, raised and exhibited by Capt. Collingwood Ingram, F.L.S., V.M.H.

Rhododendron macgregoriae 'Sirunke Orange'. (Seedling No. 128) P.C. July 15, 1969, as a flowering plant for the cool greenhouse (Votes: 7 for, 0 against). Collected, raised and exhibited by Michael Black Esq., Green Bank, Grasmere, Westmorland (Fig. 27).

Rhododendron 'Maestro' (R. 'Barclayi Robert Fox' × R. williamsianum). P.C. April 15, 1969, as a hardy flowering plant (Votes: 6 for, 3 against). Cross made, plant grown and exhibited by Major-General E. G. W. W. Harrison, C.B., C.B.E.

Rhododendron 'Myrtle Bells' (R. campylogynum var. myrtilloides × R. glaucophyllum). P.C. June 10, 1969, as a hardy flowering plant (Votes: 8 for, 3 against). Crossed and raised by H. E. Hawden Esq., exhibited by R. Strauss Esq., Stonehurst, Ardingly, Sussex.

Rhododendron praestans 'Sunte Rock', show as R. coryphaeum Rock No. 59480. P.C. April 1, 1969, as a hardy flowering plant (Votes: 11 for, 0 against). Collector Rock, exhibited by G. Gorer Esq., Sunte House, Haywards Heath, Sussex (Fig. 1).

Rhododendron 'Solstice' (R. 'Glory of Numazu' × R. indicum). P.C. June 24, 1969, as a hardy flowering plant (Votes: 6 for, 0 against). Crossed, raised and exhibited by Captain Collingwood Ingram, F.L.S., V.M.H.

Rhododendron trichanthum 'Honey Wood'. P.C. June 10, 1969, as a hardy flowering plant (Votes: 6 for, 3 against). Collector not known, raised at Tower Court and exhibited by Major A. E. Hardy, Sandling Park, Hythe, Kent.

Rhododendron vernicosum var. euanthum 'Sidlaw'. P.C. May 19, 1969, as a hardy flowering plant (Votes, unanimous). Raised and exhibited by Messrs. E. H. M. & P. A. Cox.

Camellia japonica 'Drama Girl'. F.C.C. March 18, 1969, as a flowering plant for the cool greenhouse (Votes: unanimous). Exhibited by Sir Giles Loder Bt., V.M.H., Leonardslee, Horsham, Sussex. This plant received an A.M. on March 8, 1966, when exhibited by Sir Giles Loder Bt., V.M.H., and is described in the minutes of that date. See also R.H.S. JOURNAL, Vol. XCI

(1966), p. 356 and Fig. 182, *Rhododendron and Camellia Year Book*, 1967: description and illustration (Frontispiece).

Camellia 'Maud Messel' (C. × williamsii 'Mary Christian' × C. reticulata). A.M. April 15, 1969 as a hardy flowering plant. The flowers are rose form double, with the imbricated petals finally opening to show the central cluster of stamens. The largest flowers measure up to $2\frac{3}{4}$ inches across and contain twenty-two to twenty-four petals. Flower colour is R.H.S. Colour Chart, Red Group 55B with darker veinal markings of Red Group 55A. Leaves finely serrated, slightly accuminate. Raised by Lt-Col. L. C. R. Messel, O.B.E. Exhibited by The Countess of Rosse and The National Trust, Nymans Gardens, Handcross, Haywards Heath, Sussex.

Camellia × williamsii 'Caerhays' (C. saluenensis × C. japonica 'Lady Clare'). A.M. April 29, 1969, as a hardy flowering plant. The flowers are anemone form, with two rows of outer petals and a central convex mass of intermingled petaloides and stamens. The largest flowers measure up to $4\frac{1}{2}$ inches across. Flower colour is R.H.S. Colour Chart, Red-Purple Group 67D, with darker veining of 67C. Leaves cuspidate and finely serrulate. Raised by F. C. Michael, exhibited by F. Julian Williams Esq., Caerhays Castle, Gorran, St Austell, Cornwall (Pl.15).

Camellia reticulata 'Shihtzutou' (syn. 'Lion Head'). P.C. March 18, 1969, as a flowering plant for the cool greenhouse. (Votes: unanimous). Raiser not known: exhibited by Crown Estate Commissioners (Frontispiece).

AWARDS TO RHODODENDRONS AFTER TRIAL AT WISLEY

ON the recommendation of the Rhododendron and Camellia Committee, the Council has made the following awards to rhododendrons, after trial at Wisley.

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

Hardy Hybrid Rhododendrons

Rhododendron 'Kluis Triumph' (*R. griffithianum* ×). (Raised and introduced by Anthony Kluis; sent by Mr. F. Street, Heathermead

Nursery, West End, Woking, Surrey.) **A.M.** May 28, 1969. Described *R.H.S. Proceedings*, 93, p. 124. Flowering from May 26, 1969. (**H.C.** 1968). (105).

Rhododendron 'Spring Magic' (*R.* 'Essex Scarlet' × *R. forrestii* var. *repens*). (Raised by Dietrich G. Hobbie, Linswege uber Westerstede, Oldenburg, Germany, and sent by Mr. G. B. Rawinsky, Primrose Hill Nursery, Haslemere, Surrey.) **A.M.** May 12, 1969. Plant 1½ to 2 feet high, 4¼ feet spread, vigorous, compact and spreading habit, very free-flowering; leaves 3 to 3½ inches long, 1¼ to 1½ inches wide, dark dull green. Flower truss 5½ inches diameter, 4½ inches deep, lax, globular-shaped, five to seven flowers per truss; corolla 2 to 2⅕ inches diameter, 1¾ inches long, campanulate-shaped, a colour near R.H.S. Colour Chart, Red Group 46A, very slight spotting on upper petal at mouth, almost black. Flowering from May 10, 1969. (226).

Rhododendron 'Bad Eilsen' (*R.* 'Essex Scarlet' × *R. forrestii* var. *repens*). (Raised, introduced and sent by Dietrich G. Hobbie.) **H.C.** May 12, 1969. Plant 1¾ feet high, 3 feet spread, vigorous, upright and compact habit, free-flowering; leaves 2½ inches long, 1$\frac{1}{10}$ inches wide, medium dull green. Flower truss 5½ inches diameter, 4½ inches deep, lax, globular-shaped, four to five flowers per truss; corolla 2 to 2¼ inches diameter, 2 inches long, fully expanded funnel-shaped, margins waved and crinkled, R.H.S. Colour Chart, Red Group 53C in throat and centre of petal, margins a colour near Red Group 53B, faint dotting on upper petal at mouth of tube Red Group 53A. Flowering from May 5, 1969. (91).

Rhododendron 'Constant Nymph' (*R. campanulatum* × *R.* 'Purple Splendour'). (Raised (1931), introduced (1955) and sent by Messrs. Knap Hill Nursery Ltd., Woking, Surrey.) **H.C.** May 28, 1969. Plant 5¼ feet high, 7 feet spread, vigorous, upright, fairly compact and slightly spreading habit, free-flowering; leaves 5 to 6½ inches long, 2 to 2½ inches wide, dark dull green. Flower truss 7½ inches diameter. 7½ inches deep, compact, dome-shaped, twelve to fourteen flowers per truss; corolla 4 to 4½ inches diameter, 2½ to 3 inches long, fully expanded funnel-shaped, margins waved and slightly frilled, white with faint flush of R.H.S. Colour Chart, Red-Purple Group 72C along centre of segments, colour fading slightly with age, buds white tinged and flushed Red-Purple Group 72C. Flowering from May 25, 1969. (191).

Rhododendron (Azaleodendron) **'Ria Hardijzer'** (*R. racemosum* × *R.* 'Hinodegiri'). (Raised by W. H. Hardijzer, introduced by P. W. Hardijzer, and sent by Messrs Willem Hardijzer & Co., The

Nurseries, Boskoop, Holland.) **H.C.** May 12, 1969. Plant 1¾ feet high, 1¾ feet spread, vigorous, upright and fairly compact habit, very free-flowering; leaves ¾ inch long, ⅖ inch wide, dark dull green tinged red. Flower truss 1¾ to 2 inches diameter, 1¼ to 1½ inches deep, compact, globular-shaped, nineteen flowers per truss; corolla 1 to 1⅕ inches diameter, ⅘ to 1 inch long, fully expanded funnel-shaped, margins very slightly waved, R.H.S. Colour Chart, Red-Purple Group 66C tinged very lightly round margins and in throat with Red-Purple Group 67C, light spotting on upper petals into throat Red-Purple Group 61. Flowering from May 5, 1969. (152).

Rhododendron 'Southern Cross' (*R. discolor* × *R.* 'Lodauric Iceberg'). (Raised by Mr. A. F. George, introduced and sent by Messrs. Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey.) **H.C.** June 5, 1969. Plant 4 feet high, 6 feet spread, vigorous, upright and compact habit, free-flowering; leaves 8 inches long, 2¼ to 2½ inches wide, dark dull green. Flower truss 6 inches diameter, 7 inches deep, compact, globular-shaped, ten flowers per truss; corolla 4½ inches diameter, 3½ inches long, fully expanded funnel-shaped, margins waved, white lightly flushed R.H.S. Colour Chart, Red-Purple Group 65B on lower segments and more heavily on three upper segments, mid-rib Red Group 55A, throat Red Group 45C with spotting of Red Group 53A and soft yellowish-brown, spotting spreading outwards and becoming much fainter. Flowering from June 3, 1969. (230).

Evergreen Azaleas

Rhododendron 'Hatsugiri' (parentage unknown). (Sent by Messrs. Knap Hill Nursery Ltd.) **F.C.C.** May 12, 1969. Plant 2¾ feet high, 7 feet spread, vigorous, compact and spreading habit, very free-flowering; leaves 1 1/10 long, ½ inch wide, light glossy green. Flower truss 2½ inches diameter, 1½ inches deep, compact, two to three flowers per truss; corolla 1⅕ to 1¼ inches diameter, 1 inch long, fully expanded funnel-shaped, margins very slightly waved, a colour near R.H.S. Colour Chart, Red-Purple Group 74B, very occasional very slight spotting on upper petal in throat Red-Purple Group 60B. Flowering from May 8, 1969. (**A.M.** 1956). (35).

Rhododendron 'Arcadia' (Glenn Dale Hybrid) (*R. indicum* × *R.* 'Malvatica'). (Raised at the United States Bureau of Plant Introduction (1947), Glenn Dale, Maryland, U.S.A., and sent by Messrs. Knap Hill Nursery Ltd.) **H.C.** May 28, 1969. Plant 2 feet high,

3¾ feet spread, vigorous, upright and compact habit, free-flowering; leaves 1¾ inches long, ½ inch wide, medium dark glossy green. Flower truss 3 to 3½ inches diameter, 2¼ inches deep, compact, two to three flowers per truss; corolla 1¾ inches diameter, 1⅖ inches long, funnel-shaped, margins smooth, a colour between R.H.S. Colour Chart, Red-Purple Group 61D and Red-Purple Group 62A deepening along mid-ribs to Red-Purple Group 61D, spotting on upper segments Red-Purple Group 60A. Flowering from May 25, 1969. (68).

Rhododendron 'Hino-Scarlet' (parentage unknown). (Raised and introduced by H. M. Peters, Boskoop, Holland, and sent by Exp. Station f.t. Nurseries, Boskoop, Holland.) **H.C.** May 28, 1969. Plant 1¾ feet high, 2¼ feet spread, vigorous, upright and compact habit, very free-flowering; leaves 1 to 1¼ inches long, ¾ inch wide, light glossy green. Flower truss 3 inches diameter, 1¼ inches deep, compact, three, or occasionally four flowers per truss; corolla 1¾ inches diameter, 1¼ inches long, funnel-shaped, hose-in-hose, margins waved, R.H.S. Colour Chart, Red Group 53D lightly flushed 53C in centre of floret, some very faint spotting on upper segment Red Group 53B. Flowering from May 20, 1969. (105).

Rhododendron 'Lorna' (Gable Hybrid) (*R.* 'Caroline Gable' × *R.* 'Louise Gable') (Raised by Joseph B. Gable, Stewartstown, Pennsylvania, U.S.A., and sent by Messrs. John Waterer, Sons & Crisp Ltd., The Nurseries, Bagshot, Surrey.) **H.C.** May 28, 1969. Plant 1½ feet high, 2 feet spread, vigorous, upright and compact habit, very free-flowering; leaves 1⅘ inches long, ¾ inch wide, very light green. Flower truss 2½ to 2¾ inches diameter, 2 inches deep, compact, two or three flowers per truss; corolla 1¼ to 1½ inches diameter, 1 1/10 inches long, funnel-shaped, double, margins smooth, a colour near R.H.S. Colour Chart, Red-Purple Group 62A and deepening in centre of floret, very faint spotting on upper segments Red-Purple Group 59C. Flowering from May 25, 1969. (109).

Deciduous Azaleas

Rhododendron 'Deben' (parentage unknown; formerly Wisley Seedling No. 26). (Raised and supplied by The Royal Horticultural Society's Garden, Wisley, Ripley, Woking, Surrey. Not yet generally introduced.) **A.M.** May 28, 1969. Plant 5¾ feet high, 6 feet spread, vigorous, upright and compact habit, very free-flowering; leaves 2½ to 2¾ inches long, 1 1/10 inches wide, medium dark glossy green. Flower truss 5 inches diameter, 5 inches deep, compact, globular-shaped, fifteen to eighteen flowers per truss;

corolla 2¾ inches diameter, 1 7/10 inches long, fully expanded funnel-shaped, margins frilled. R.H.S. Colour Chart, Yellow-Orange Group 15C lightly tinged Yellow-Orange Group 15B, large blotch on upper petal extending to tip of segment Yellow-Orange Group 23A. Flowering from May 22, 1969. (**H.C.** 1963). (156).

Rhododendron 'Willem Hardijzer' (Seedling of Azalea (Mollis) 'Hugo Hardijzer'). Raised, introduced (1944) and sent by Messrs. Willem Hardijzer & Co.) **A.M.** May 28, 1969. Described *R.H.S. Proceedings*, 91, p. 135. Flowering from May 20, 1969 (**H.C.** 1966). (77).

Rhododendron 'Lady Rosebery' (parentage unknown). (Raised by the late Anthony Waterer, introduced (1944) and sent by Messrs. Knap Hill Nursery Ltd.) **H.C.** June 5, 1969. Plant 4¼ feet high, 6 feet spread, vigorous, upright and slightly spreading habit, very free-flowering; leaves 2 to 2½ inches long, 1 1/10 to 1⅔ inches wide, light to medium glossy green tinged red. Flower truss 4½ inches diameter, 3½ inches deep, compact, globular-shaped, twenty-five to thirty flowers per truss; corolla 2¼ to 2½ inches diameter, 1¾ to 2 inches long, funnel shaped with petals recurved, margins slightly waved and frilled, R.H.S. Colour Chart, Red Group 46D with touches of Red Group 45C, mid-rib on older florets Red Group 48C, younger florets with slight orange tinge overlying the red, heavy blotch on upper petal Orange Group 28B. Flowering from May 27, 1969. (87).

BOOK REVIEW—CORRECTION

"Rhododendron Information." The correct price of this book, published by the American Rhododendron Society, is $6.95; see *Rhododendron and Camellia Year Book*, 1969, No. 23, p. 158, where the price is given incorrectly as $16.95.

THE AMERICAN CAMELLIA SOCIETY

We have been asked to announce that the American Camellia Society has increased its annual subscription to $7.50 (£3. 2s. 6d.). British members of the American Camellia Society can send their subcriptions to Reginald Try, Byways, St. Leonards Hill, Windsor, Berks.

ADDITIONS TO THE INTERNATIONAL RHODODENDRON REGISTER, 1968–69

Alf Bramley — cl. *nuttallii* var. *stellatum* 'Kallistos' ♂ × *dalhousiae* ♀; (Alfred Bramley, Perrins Creek Road, Kallista, Victoria, Australia); fls. 3–4 in truss, yellow in bud opening to white flushed pink, faintly perfumed.

Ann Pascoe — cl. (*apodectum* × *campylocarpum* (Hooker's form)) × 'Idealist'; (Lester E. Brandt, Route 5, Box 542, Tacoma, Washington 98423, U.S.A.); openly growing plant 4 ft. by 4 ft. grown from seed planted January 1959; lvs. 4¼ in. long, 1¾ in. broad; fls. 12–14 per truss; calyx irregular, to ¾ in. deep; corolla 3½ in. diameter, 1¾ in. long, 7-lobed, R.H.S. Colour Chart, Yellow Group 9C, slightly flushed on opening Yellow-Orange Group 22.

April Blush — cl. *carolinianum* var. *album* × *mucronulatum*; (G. G. Nearing, Ramsey, New Jersey, U.S.A.); 2 ft. by 2 ft. after 10 years; lvs. up to 1 in. long, pointed, semi-deciduous; fls. very plentiful at the end of April, to 1½ in. diameter, blush pink fading to vivid white.

April Chimes — cl. *hippophaeoides* × *mollicomum* (introduced by Messrs. Hillier & Sons, Winchester, Hants., England, 1969, and raised from seed of *hippophaeoides* in 1938, the seed having been sent by the Royal Botanic Garden, Edinburgh to Messrs. Clibrans Ltd., first flowered 1941); floriferous upright shrub to 5 ft.; lvs. narrowly elliptic, 1 in. or slightly more long, very scaly below with scales nearly contiguous; fl. buds mainly terminal but occasionally 2-3 together in axils of apical leaves; umbels 3- to 6-flowered forming compact balls, individual flowers funnel-shaped with flattened limb, 1 in. long by as much or slightly more in diameter, a uniform rosy-mauve, without markings; usually mid to late April flowering; excellent as a cut bloom for indoor decoration.

Bad Eilsen — cl. 'Essex Scarlet' × *forrestii* var. *repens*; (raised and introduced by Dietrich G. Hobbie, Linswege uber Westerstede, Oldenburg, Germany); vigorous free flowering plant of upright and compact habit; lvs. 2½ in. long, 1 1/10 in. broad, medium dull green; fls. 4–5 per lax, globular-shaped truss, 5½ in. diameter, 4½ in. deep; corolla 2–2½ in. diameter, 2 in. long, funnel-shaped when fully expanded, margins waved and crinkled, R.H.S. Colour Chart, Red Group 53C in throat and centre of petal, margins a colour near Red Group 53B, faint dotting on upper petal at mouth of tube Red Group 53A. A. M. (Wisley Trials) 1969, when exhibited by Dietrich Hobbie.

Betty Graham — cl. Form of *anthopogon* (L. & S. 1091); (E. H. M. & P. A. Cox, Glendoick Gardens Ltd., Perth, Scotland); lvs. aromatic, up to 1⅔ in. long and 1 in. broad,

obovate-elliptic, under-surface densely covered with dark brown, scaly indumentum; fls. 8–10 per truss, fragrant, narrowly tubular, $\frac{7}{10}$ in. long, $\frac{6}{10}$ in. diameter, R.H.S. Colour Chart, Red-Purple Group 61C deepening towards base of corolla to 60B, densely hairy in tube. A.M. (R.H.S.) 1969.

Budget Farthing — cl. Form of *fargesii*; (raised by Henry, Lord Aberconway, Bodnant, Tal-y-Cafn, Colwyn Bay, Denbighshire, N. Wales); lvs. broadly elliptic, dark green above, glaucous below, up to 3 in. long and 2 in. broad; fls. in 8- or 9-flowered trusses, openly campanulate, 7-lobed, $2\frac{1}{4}$ in. long and $2\frac{1}{2}$ in. diameter, basically white but suffused with R.H.S. Colour Chart, Red-Purple Group 69A, flower buds darker Red-Purple 70B, this colour retained in the form of numerous spots/markings on upper throat; calyx rudimentary and with pedicels covered with red glandular hairs. A.M. (R.H.S.) 1969.

a Calusa — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, up to 5 ft.; lvs. $1\frac{3}{4}$ in. long, $\frac{7}{8}$ in. broad; fls. in clusters of 2, hose-in-hose, up to $2\frac{1}{2}$ in. diameter, deep purple-pink (Nickerson 7.5RP 6/12).

a Canary Yellow — cl. [Exbury]; 'Cecile' selfed; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); plant over 4 ft.; fls. produced in April, May and June, star-shaped, up to $3\frac{1}{2}$ in. diameter, 5-lobed, bright yellow gold, fading to yellow, with 2 faint gold streaks on top petal.

a Can Can — cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); compact evergreen plant up to 3 ft. high; lvs. 1 in. by $\frac{1}{2}$ in.; fls. in clusters of 2–3, double, up to 3 in. diameter, very frilled, moderate purple-red (Nickerson 5RP 5/10); blooming late May.

a Cantico — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen plant up to 3 ft. tall; lvs. $1\frac{1}{2}$ in. by $\frac{3}{4}$ in.; fls. in clusters of 2–3, single, to $2\frac{1}{2}$ in. diameter, white with light purple edge (Nickerson 7.5P 6/8).

a Capri — cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen plant, up to 4 ft. tall; lvs. $1\frac{3}{4}$ in. by $\frac{3}{4}$ in.; fls. in clusters of 3, single, up to $3\frac{3}{4}$ in. diameter, deep purple-pink with red blotch (Nickerson 2.5RP 6/10).

a Cayuga — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); compact evergreen plant 3 ft. high; lvs. $1\frac{3}{4}$ in. long, $\frac{7}{8}$ in. broad; fls. in clusters of 3–10, hose-in-hose, up to $2\frac{1}{2}$ in. diameter, deep purplish-pink with white throat (Nickerson 5RP 6/10).

Cliff Garland — cl. 'Bric-a-brac' × *mucronulatum* (pure pink form); (G. G. Nearing, Ramsey, New Jersey, U.S.A.); plant 1 ft. tall, 2 ft. wide after 10 years; lvs. obovate to nearly circular, to 2 in. long, deep purplish-green,

rich brown when young; fls. 1–4 per cluster, 2 in. diameter, shell pink; flowering in early April.

Cliff Spangle — cl. 'Bric-a-brac' × *mucronulatum* (pure pink form); (G. G. Nearing, Ramsey, New Jersey, U.S.A.); plant 1 ft. high and 1 ft. broad after 10 years; lvs. evergreen, lanceolate, sharply pointed, up to 1 in. long; fls. in clusters of 2–5, 2½ in. diameter when widely open, deep pink; flowering in early April.

Cobalt — cl. 'Blue Diamond' × *russatum*; (Captain Collingwood Ingram, Benenden, Kent, England); small bush with deep blue flowers.

a Concho — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact plant up to 18 in. high; lvs. 1¼ in. long and ¾ in. broad; fls. in clusters of 3–6, single, up to 2½ in. diameter, strong reddish-purple (Nickerson 2.5RP 5/10).

Cool Haven — cl. 'Chaste' × *litiense*; (raised at Embley Park, Hants, England, purchased by Messrs Hillier & Sons, Winchester, Hants, England; first flowered at Hillier's Chandlers Ford Nursery in 1948 and introduced by Hillier in 1969); medium-sized shrub up to 10 ft.; lvs. rigid, horizontally disposed, oblong-ovate, 4–5 in. long, 2 in. broad; fls. 18–20 in well-filled rounded truss, widely funnel-shaped, 1¾ in. long, 2¾ in. diameter, dresden yellow (H.C.C. 64/3) with neat ray of crimson markings on a deeper yellow ground, stained crimson externally, with faint but distinct fragrance; May flowering.

Costa del Sol — cl. Seedling of *caloxanthum* × *lacteum*; (raised by Lionel de Rothschild, Inchmery House, Exbury, Southampton, Hants, England); lvs. elliptic, up to 4¾ in. long and 2¼ in. broad, dark green above, covered with pale brown indumentum below; fls. in loose trusses of 14–16, open campanulate, 5-lobed, 2 in. long, 2½ in. diameter, R.H.S. Colour Chart, Yellow Group 10B deepening towards the base of the outside of the corolla to Yellow Group 11A, slight flush of Red Group 46A deep in the upper part of throat. A.M. (R.H.S.) 1969 when exhibited by Mr. Edmund de Rothschild, under the name 'Joanita', which was given to all the seedlings of the hybrid *caloxanthum* × *lacteum*.

Curlew — cl. *ludlowii* × *fletcherianum*; (crossed by P. A. Cox, raised and exhibited by E. H. M. & P. A. Cox, Glendoick Gardens Ltd., Perth, Scotland); lvs. narrowly obovate to obovate, up to 1½ in. long and ⅜ in. broad, dark green above, paler below and sparingly covered with light brown scaly indumentum; fls. carried singly or in trusses of 2–3, openly campanulate, 5-lobed, 2 in. diameter, 1 in. long, R.H.S. Colour Chart, Yellow-Green Group 154D, outer corolla with deeper shades of 154C, upper throat spotted and marked with greenish-brown; calyx of 5 deeply divided lobes up to 5/16 in. long, fringed with hairs. F.C.C. (R.H.S.) 1969 for plant which was growing in a 14-in. pan and measured 8 in. high and 17 in. across.

a Deseronto — cl. 'Rose Greeley' × 'Ward's Ruby'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen up to 3 ft. high; lvs. 1¼ in. long, ¾ in. broad; fls. in clusters of 3–6, single, up to 2¾ in. diameter, strong purple-red (Nickerson 10RP 4/12).

a Doctor Rudolph Henny — cl. [Exbury]; 'Cecile' selfed; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); up to 5 ft.; fls. 6–10 per truss, 6-lobed, semi-double, up to 4 in. diameter, ruffled, orange strawberry-pink, fading to pink, with gold spotting; May flowering.

a Dolores — cl. 'Helen Close' × 'Campfire'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, to 4 ft. high; lvs. 1½ in. long by ½ in. broad; fls. 2 per cluster, double, to 3 in. diameter, deep purple-pink (Nickerson 7.5RP 6/12).

Dorothy Robbins — cl. *campylocarpum* (Hooker's form) × 'Margaret Dunn'; (Lester E. Brandt, Route 5, Box 542, Tacoma, Washington 98423, U.S.A.); compact plant 3 ft. by 3 ft. grown from seed planted January 1960, flowering for the first time 1969; lvs. 4 in. long, 2 in. broad; fls. 4 in. diameter, 2 in. long, 5-lobed, R.H.S. Colour Chart, Yellow Group 11B to 11A in throat, blotch in throat Orange-Red Group 32A.

Edwin Parker — cl. 'Day Dream' × 'Albatross'; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); up to 7 ft. tall; lvs. up to 5 in. long and 1½ in. broad; fls. up to 16 per truss, 5-lobed, up to 4 in. diameter, flat, pink to peach with creamy shades of pink at centre of each lobe; truss 7½ in. tall, 9 in. across; June flowering.

Eleanor Black — cl. Form of *konori*; (collected in New Guinea and raised by Michael Black, Green Bank, Grasmere, Westmorland, England), lvs. broadly elliptic, 2¾ in. long, 1¾ in. broad, covered on both surfaces with minute green pustules; fls. few per truss. tubular-funnel-shaped, 6- or 7-lobed, 3¾ in. long, 4 in. diameter, fragrant, especially at night, basically white flushed strongly interveinally with R.H.S. Colour Chart, Red Group 55B, deepening in throat to uniform Red Group 55A; calyx rudimentary. A.M. (R.H.S.) 1969.

Elizabeth Lock — cl. An *auriculatum* hybrid?; (raiser unknown; introduced and exhibited by Surgeon-Captain J. A. N. Lock, R.N., Lower Combe Royal, Kingsbridge, Devon, England); lvs. oblong, auriculate, averaging 9 in. long, 3 in. broad, slight floccose indumentum on lower surface; fls. 12–13 in fairly compact rounded truss to 7 in. across, campanulate, 5-lobed, 3 in. diameter, slightly fragrant, silvery-pink approximating to R.H.S. Colour Chart, Red Group 52D inside the tube but darker at the base and externally (a blend of Red Group 52A and C), uppermost corolla lobe with deep pink or orange-pink markings; calyx to 4 mm. deep, 5-lobed, glandular-hairy, ciliate at margins. A.M. (R.H.S.) 1968.

Elsa Reid cl. Form of *souliei* grown from seed collected in the wild; (raised by Mrs. A. C. U. Berry, introduced by Mr. and Mrs. Bovee, Portland, Oregon, U.S.A.); up to 5 ft. tall; lvs. to 3 in. long, somewhat oval, light green beneath; fls. 5–8 per truss, up to 2½ in. diameter, cream, with crimson spot in throat, edges of lobes irregularly blotched red (Nickerson 7.5R 5/13); flowering mid-May.

a Estrellita cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact plant up to 2 ft. high; lvs. 1½ in. long, ⅝ in. broad; fls. in clusters of 2–5, single, to 2¼ in. diameter, strong red (Nickerson 5R 4/12).

Farther cl. *fargesii* × *morii*; (hybridised and raised by Captain Collingwood Ingram, The Grange, Benenden, Cranbrook, Kent, England); lvs. lanceolate, 5 in. long, 2 in. broad; fls. in loose 10-flowered trusses, openly campanulate, 2½ in. diameter, 1¾ in. long, in bud R.H.S. Colour Chart, Red-Purple Group 61A paling on opening to white faintly flushed Red-Purple Group 62C with a cluster of small spots Red-Purple Group 62C on upper throat. P.C. (R.H.S.) 1969.

Frank Kingdon Ward cl. Form of *rude:* (Messrs. A. C. and J. F. A. Gibson, Glenarn, Rhu, Dunbartonshire, Scotland); lvs. oblanceolate, acuminate, 7 in. long, 2 in. broad, pale green above and covered with coarse yellowish-green hairs, below the veins prominently hairy; fls. up to 16 per loose truss, open campanulate, 7-lobed, 1½ in. long, 3 in. diameter, colour basically white but with outside strongly stained with R.H.S. Colour Chart, Red-Purple Group 68A—the colour being in the form of a bar along the centre of each petal, suffusing the inner corolla with softer shades of red-purple, 3 upper petals finely spotted and marked with a darker shade of Red-Purple close to 67A; calyx rudimentary, 7 joined segments covered with red glandular hairs. A.M. (R.H.S.) 1969.

a Frostburg cl. 'Desiree' × 'Rose Greeley'; (H. R. Yates, Frostburg, Maryland, U.S.A.); evergreen, compact plant, 3 ft. by 3 ft. after 10 years; lvs. oblanceolate, 2¼ in. long by 1 in. broad; fls. hose-in-hose, 10 petals, R.H.S. Colour Chart, 155D with spotted flare of 145C, up to 3 in. diameter, fragrant; has flowered after −8°.

Geordie Sherriff cl. Form of *lindleyi*; (Messrs. A. C. and J. F. A. Gibson, Glenarn, Rhu, Dunbartonshire, Scotland); lvs. 4½ in. long and 1¾ in. broad, elliptic, dark green above, glaucous below and lightly covered with brown scaly indumentum; fls. 6–7 per truss, fragrant, tubular-funnel-shaped, 5-lobed, 3 in. long, 3 in. diameter, white strongly flushed on outside with R.H.S. Colour Chart, Red-Purple Group 63A, colour stronger on uppermost petals, upper lobe strongly stained with greenish-yellow at base; calyx $\frac{9}{16}$ in. long flushed red and fringed with fine hairs. A.M. (R.H.S.) 1969.

Gigha cl. Form of *calostrotum:* (believed to have arisen in the garden of Sir James Horlick, Isle of Gigha, Argyll, Scotland; registered by Hillier & Sons, Winchester,

Hants, England); differing from the type in the deep claret-red flowers.

a Greenwood Orange cl. 'Louise Gable' × 'Ward's Ruby'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, up to 3½ ft. high; lvs. 1½ in. long by ½ in. broad; fls. in clusters of 2, double, to 2 in. diameter, strong reddish-orange (Nickerson 7.5R 5/13).

a Greenwood Orchid cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact, to 3 ft. high; lvs. 1¾ in. long by 1 in. broad; fls. in clusters of 2–4, hose-in-hose, to 2¼ in. diameter, deep purple-red (Nickerson 2.5RP 5/10).

a Greenwood Pink cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, up to 4 ft. high; lvs. 2¼ in. long, 1⅛ in. broad; fls. in clusters of 2, double, to 3 in. diameter, strong purplish-pink (Nickerson 5RP 7/9).

High Flier cl. Form of *vesiculiferum* K.W. 10952; (exhibited by The Crown Estate Commissioners, Crown Estate Office, The Great Park, Windsor, Berks., England); lvs. oblanceolate, up to 7 in. long, 2½ in. broad, covered with long, pale, reddish-tipped glandular hairs; fls. 10–12 in loose sub-umbellate trusses, 1½ in. long, 1¾ in. diameter, in bud R.H.S. Colour Chart, Red-Purple Group 61A paling as flower opens when outer surface of petal is strongly flushed Red-Purple Group 66D, more prominent on upper petals than lower ones, base of throat Red-Purple Group 59A; calyx of 5 irregular lobes up to 6 mm. deep, flushed red. A.M. (R.H.S.) 1968.

a High Sierras cl. [Knap Hill]; (raised from Knap Hill seed, and introduced by Mr. and Mrs. Bovee, Portland, Oregon, U.S.A.); deciduous plant 4–5 ft. in 20 years; lvs. up to 6 in. long; fls. 9–12 per truss, up to 3½ in. in diameter, rather square in shape, white with an Indian-yellow blotch, changing to yellow (Nickerson 2.5GY 7/10); flowering in late May.

a Hino-Scarlet cl. Parentage unknown; (raised and introduced by H. M. Peters, Boskoop, Holland); vigorous, upright and compact, free flowering, evergreen plant; lvs. 1–1¼ in. long, ¾ in. broad, light glossy green; fls. 3 or 4 per compact truss, 3 in. diameter, 1¼ in. deep; corolla 1¾ in. diameter, 1¼ in. long, funnel-shaped, hose-in-hose, margins waved, R.H.S. Colour Chart, Red Group 53D lightly flushed 53C in centre of floret, some faint spotting on upper segment Red Group 53B. H.C. (Wisley Trials) 1969; sent for trial by Experimental Station, f.t. Nurseries, Boskoop, Holland.

Honey Wood cl. Form of *trichanthum*; (raised at Tower Court, Ascot, England, introduced by Major A. E. Hardy, Sandling Park, Hythe, Kent, England); lvs. elliptic, acuminate, up to 3½ in. long, 1⅝ in. broad, both surfaces lightly covered with scattered brown scaly indumentum; fls. in clusters of 3, widely funnel-shaped, 5-lobed, 1¼ in. long, up to 2½ in. diameter, R.H.S. Colour Chart,

Purple-Violet Group 82B, paler in throat with conspicuous green mottling, shading towards base on outside to Red-Purple Group 74C; calyx rudimentary; pedicels $\frac{4}{5}$ in. long, fairly densely covered with bristly hairs. P.C. (R.H.S.) 1969.

Hotei — cl. 'Goldsworth Grange' × (*souliei* × *wardii*); (raised by Karl I. Sifferman, Seattle, Washington, introduced by Sifferman-Ben Nelson, Suquamish, Washington, U.S.A.); compact plant up to 5 ft. high in 15 years; lvs. narrowly elliptic, 4 in. long, $1\frac{1}{2}$ in. wide; fls. up to 12 in a ball-shaped truss, $2\frac{1}{2}$ in. diameter, $2\frac{1}{2}$ in. long, funnel-shaped, canary-yellow; calyx prominent. Preliminary Award, American Rhododendron Society.

Hydon Salmon — cl. *griersonianum* × *discolor*; (A. F. George, Hydon Nurseries Ltd., Hydon Heath, Godalming, Surrey, England); fls. open funnel-shaped, borne in a slightly loose truss of up to 12, glowing salmon-red, unfading, R.H.S. Colour Chart, Red Group 43C.

a Kachina — cl. 'Rose Greeley' × 'Ward's Ruby'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); compact evergreen plant up to 2 ft. high; lvs. 1 in. long, $\frac{3}{8}$ in. broad; fls. in clusters of 2, hose-in-hose, to $1\frac{1}{2}$ in. diameter, strong purple-red (Nickerson 7.5RP 5/12); May flowering.

a Kakiemon — cl. 'Nanki Poo' × *kaempferi*; (A. F. George, Hydon Nurseries, Hydon Heath, Godalming, Surrey, England); evergreen medium-sized plant; fls. in trusses of three, R.H.S. Colour Chart, Red Group 50B, with darker spotting; very floriferous. Selected for trial at Wisley, 1969.

a Langmans — cl. Seedling of *linearifolium* var. *macrosepalum* (Walter C. Slocock Ltd., Goldsworth Nursery, Woking, Surrey, England); bush of medium height; lvs. elliptical; flowers in May, R.H.S. Colour Chart, 634/2 at bud break, 38/3 when fully open, with small dark spots on upper lobe.

Manda Sue — cl. 'Vulcan' × 'Elspeth'; (raised in 1961 by George L. Baker, Astoria, Oregon, U.S.A.); compact plant $2\frac{1}{2}$ ft. high in 8 years; lvs. 4 in. long, $1\frac{3}{4}$ in. broad; fls. 12–14 in upright truss, shell pink, red edge, yellow centre.

a Marie Elena — cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact plant up to 3 ft. high; lvs. 1 in. long, $\frac{1}{2}$ in. broad; fls. in clusters of 2, double, to $2\frac{3}{4}$ in. diameter, strong purple-pink (Nickerson 5RP 7/9); June flowering.

Mountain Aura — cl. 'Dorothea' × a red hybrid; (G. G. Nearing, Ramsey, New Jersey, U.S.A.); up to 3 ft. high in 10 years; lvs. to 6 in. long and 3 in. broad; fls. in trusses 6 in. high and 7 in. across, flax blue (H.C.C. 542/2), with white centre, up to 4 in. diameter; flowering late May.

Mountain Glow — cl. 'Dorothea' × a red hybrid; (G. G. Nearing, Ramsey, New Jersey, U.S.A.); densely branching plant up to 3 ft. high in 10 years; lvs. oval, to 6 in. long and 3 in. broad; fls. reddish purple, 4 in. diameter, in truss 6 in. across; flowering late May.

Mountain Queen — cl. 'Dorothea' × a red hybrid; (G. G. Nearing, Ramsey, New Jersey, U.S.A.); plant 4 ft. tall in 10 years; lvs. oval to 7 in. long and 3 in. broad; fls. somewhat fragrant, to 4 in. diameter, rose with a pale centre, in truss up to 6½ in. across; May flowering.

Myrtle Bells — cl. *campylogynum* var. *myrtilloides* × *glaucophyllum*; (crossed and raised by H. E. Hawden; exhibited by R. Strauss, Stonehurst, Ardingly, Sussex); lvs. narrowly elliptic to elliptic, 2½ in. long and 1 in. broad; fls. 5–8 per cluster, campanulate, 5-lobed, 1 in. long and 1 in. diameter, R.H.S. Colour Chart, Purple Group 77A, inner face of corolla slightly paler with some reddish-purple spotting of the upper throat; calyx up to 3 mm. deep, of 5 deeply divided lobes. P.C. (R.H.S.) 1969.

Nestor — cl. *barbatum* × *thomsonii*; (raised by Sir Edmund Loder, exhibited by The Hon. H. E. Boscawen, The High Beeches, Handcross, Sussex, England); lvs. elliptic, rounded and auricled at base, tip mucronate, glabrous, dark green above, paler below; fls. up to 13 per truss 5 in. diameter; corolla campanulate, 5-lobed, 2 in. long, 2½ in. diameter, R.H.S. Colour Chart, Red Group 53B with a few small darker markings on the upper throat; calyx unevenly 5-lobed, up to $\frac{3}{10}$ in. long, glabrous, Red Group 51A. A.M. (R.H.S.) 1969.

a Nevada — cl. [Knap Hill]; (raised from Knap Hill seed of unknown parentage by Mr. and Mrs. Bovee, Portland, Oregon, U.S.A.); plant 6 ft. tall after 20 years; lvs. to 6 in. long; fls. squarish, to 3½ in. diameter, white, flushed pale pink (Nickerson 2.5R 8/5) with Indian-yellow blotch.

a Paluna — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); compact evergreen plant up to 2 ft. tall; lvs. 1½ in. long, $\frac{7}{8}$ in. broad; fls. in clusters of 2–3, single, to 2½ in. diameter, deep purple-red (Nickerson 10RP 4/12); May flowering.

Paris — cl. 'Aurora' × *fortunei*; (Edmund de Rothschild, Exbury, Southampton, Hants., England); lvs. narrowly elliptic to elliptic, 6 in. long, 2½ in. broad, glabrous; fls. 10–12 in loose truss, 3 in. long, 3 in. diameter, R.H.S. Colour Chart, Red-Purple Group 73D. P.C. (R.H.S.) 1968.

a Pawnee — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); compact evergreen plant up to 2½ ft. high; lvs. 1¾ in. long, ¾ in. broad; fls. in clusters of 2, hose-in-hose, to 2¼ in. diameter, strong purplish-red (Nickerson 7.5RP 5/12); May–June flowering.

Phyle Donegan — cl. 'Loderi Superlative' ♂ × *fortunei* ♀; (R. L. Rowarth, 22 Bayview Avenue, Upway, Victoria, Australia); fls. H.C.C. Rose Bengal 25/3, spotted on upper lobe.

a Pollyanna — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen spreading plant up to 2 ft. high; lvs. 1½ in. long by ⅝ in. broad; fls. in clusters of 2, single, up to 2½ in. diameter, deep purple-pink with white throat (Nickerson 5RP 6/10) and red blotch; May flowering.

a Port Wine — cl. Seedling of *linearifolium* var. *macrosepalum*: (Walter C. Slocock Ltd., Goldsworth Nursery, Woking, Surrey, England); compact plant of medium height, flowering in May, fls. R.H.S. Colour Chart 830/1.

a Puff — cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen plant up to 2 ft. high; fls. in clusters of 2–3, double, up to 3 in. diameter, frilled, deep purple-pink (Nickerson 7.5RP 6/12); May-June flowering.

a Red Feather — cl. 'Louise Gable' × 'Ward's Ruby'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, up to 3 ft. high; lvs. 1¼ in. long, ½ in. broad; fls. in clusters of 2–4, double, to 2 in. diameter, vivid red (Nickerson 5 RP 5/13); May flowering.

Rochelle — cl. 'Dorothea' × 'Kettledrum'; (raised by G. G. Nearing, introduced by Warren Baldsiefen, Bellvale, New York, U.S.A.); plant 3 ft. high in 10 years; lvs. oval, to 7 in. long by 3 in. broad; fls. in trusses up to 6 in. across, somewhat fragrant, up to 4 in. diameter, rose with a strawberry blotch; flowering late May.

Roza Stevenson — cl. 'Loderi Sir Edmund' × *wardii* (K.W. 5736); (the late Mr. and Mrs. J. B. Stevenson, Tower Court, Ascot, Berks., England); lvs. narrowly ovate, 5 in. long, 2¾ in. broad, subcordate and free from indumentum; fls. 10–12 per truss, saucer-shaped, 4½ in. diameter, 1¼ in. long, R.H.S. Colour Chart, Green-Yellow Group 1B paling as flowers open to Yellow-Green Group 1D with inner surface remaining slightly deeper in colour; calyx green slightly flushed red, irregularly 7-lobed, up to 5 mm. deep, fringed with glandular hairs. F.C.C. (R.H.S.) 1968—as 'Roza Harrison'.

Rudy's Candy — cl. 'Azor' × 'Corona'; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); plant up to 3½ ft. high; lvs. up to 5½ in. long and 2 in. broad; fls. 16–17 in tall truss, 6- to 7-lobed, to 3 in. diameter, two-tone, deep pink outside; May–June flowering.

Rudy-Leona — cl. 'Quinella' selfed; (raised by Rudolph Henny, introduced by Leona Henny, Brooks, Oregon, U.S.A.); plant up to 3 ft.; lvs. to 6 in. long and 2½ in. broad; fls. 6–10 per truss, rotate, semi-double to double, to 3 in. diameter, dark currant red with small dots; May flowering.

a Salishan — cl. 'Rose Greeley' × 'Ward's Ruby'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, up to 3 ft.; lvs. ¾ in. long, ⅜ in. broad; fls. in clusters of 2, hose-in-hose, up to 1½ in. diameter, moderate purplish red (Nickerson 5RP 5/10); May flowering.

a Santee — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact plant up to 3 ft.; lvs. 1¼ in. long, ¾ in. broad; fls. 3–9 per truss, hose-in-hose, to 3 in. diameter, deep purple-pink (Nickerson 5RP 6/10); May flowering.

a Sarrano — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact plant up to 2½ ft.; lvs. 1½ in. long by ½ in. broad; fls. in clusters of 3–10, hose-in-hose, to 2½ in. diameter, strong purplish-pink (Nickerson 7.5RP 7/10); May flowering.

a Satanta — cl. 'Rose Greeley' × 'Ward's Ruby'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen up to 4 ft.; lvs. 1¼ in. long, ½ in. broad; fls. in clusters of 2–5, hose-in-hose, to 1¾ in. diameter, strong purplish-red (Nickerson 7.5RP 5/12); April flowering.

Scarlet Tanager — cl. 'Elizabeth' (*forrestii* var. *repens* × *griersonianum*) × *forrestii* var. *repens*; (Captain Collingwood Ingram, The Grange, Benenden, Cranbrook, Kent, England); small bush with intense scarlet flowers.

a Shawna — cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact plant up to 4 ft. high; lvs. 1½ in. long by ½ in. broad; fls. in clusters of 2, double, up to 2¾ in. diameter, light reddish-purple (Nickerson 10P 6/9); May flowering.

Sheila Ann — cl. Parentage unknown; (Mrs. James Caperci, Seattle, Washington, U.S.A.); plant 3 ft. high and 4 ft. across; lvs. elliptical to oblanceolate, 3 in. long, 1¼ in. broad, with loose fawn indumentum; fls. 8–10 in lax truss, 2 in. diameter, black-crimson spotted black on upper lobe; very late flowering.

Sidlaw — cl. Form of *vernicosum* var. *euanthum*; (raised by E. P. Magor, Lamellen, Cornwall, England); lvs. elliptic 4 in. long and 1¾ in. across, dark green above, paler below; fls. 9–12 per truss, funnel-campanulate, up to 2 in. diameter, white flushed R.H.S. Colour Chart, Red-Purple Group 68D with darker veinal markings, large blotch of Red-Purple Group 59B in upper throat; calyx 5-lobed, irregular, up to $\frac{3}{10}$ in. deep, glandular hairy. P.C. (R.H.S.) 1969 when exhibited by E. H. M. and P. A. Cox, Glendoick Gardens Ltd., Perth, Scotland.

a Silver Star — cl. 'Louise Gable' × 'Helen Close'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, up to 4 ft. high; lvs. 1½ in. long, ⅝ in. broad; fls. in clusters of 2, double, to 3 in. diameter, strong reddish-purple (Nickerson 2.5RP 5/10), with white throat; late May blooming.

Sirunke Orange — cl. Seedling of the New Guinea *macgregoriae*; (collected and raised and exhibited by Michael Black, Green Bank, Grasmere, Westmorland, England); lvs. narrowly elliptic, undulate at margin, up to 5 in. long and 1¾ in. broad, both surfaces lightly covered with small black scales; fls., in specimen shown, in a single 24-flowered umbel 4½ in. across, corolla

tube $\frac{3}{10}$ in. long, perianth segments markedly reflexed, $\frac{4}{5}$ in. long, slightly fragrant, inside R.H.S. Colour Chart, Greyed Yellow Group 162B, shading to Greyed Orange Group 169B with faint traces of darker 169A on perianth extremities, outside of corolla similar but with Greyed Orange less noticeable, tube traced by deeper Greyed Yellow. P.C. (R.H.S.) 1969 as a plant for cool greenhouse.

a Solstice — cl. 'Glory of Numazu' × *indicum*; (Captain Collingwood Ingram, The Grange, Benenden, Cranbrook, Kent, England); hardy; lvs. narrowly ovate, mucronate, 2 in. long, $\frac{4}{5}$ in. broad, remotely crenulate-serrulate, ciliate, scattered adpressed red-brown hairs on both surfaces; fls. carried singly, occasionally in pairs, open funnel-shaped, 4 in. diameter, $1\frac{1}{2}$ in. long, R.H.S. Colour Chart, Red Group 52C with traces of orange-red along the central veins, upper throat strongly marked with Red-Purple Group 57A; calyx of 5 narrow pointed deeply divided green lobes, up to $\frac{1}{2}$ in. long; pedicels short, up to $\frac{1}{2}$ in. long. P.C. (R.H.S.) 1969; selected for trial at Wisley.

Spring Magic — cl. 'Essex Scarlet' × *forrestii* var. *repens*; (raised by Dietrich G. Hobbie, Linswege uber Westerstede, Oldenburg, Germany); vigorous and free-flowering compact and spreading plant; lvs. 3–$3\frac{1}{2}$ in. long, $1\frac{1}{4}$–$1\frac{1}{2}$ in. broad, dark dull green; fls. 5–7 in lax globular truss, $5\frac{1}{2}$ in. diameter, $4\frac{1}{2}$ in. deep; corolla 2–$2\frac{1}{8}$ in. diameter, $1\frac{3}{4}$ in. long, campanulate, R.H.S. Colour Chart, Red Group 46A, very slight spotting on upper petal, at mouth almost black. A.M. 1969 (Wisley Trials); sent to trials by G. B. Rawinsky, Primrose Hill Nursery, Haslemere, Surrey.

Summer Snow — cl. *maximum* × (*ungernii* × *auriculatum*) F_2; (David G. Leach, Brookville, Pa., U.S.A.); vigorous plant $4\frac{1}{2}$ ft. tall and $4\frac{1}{2}$ ft. broad at 9 years from seed; lvs. variable, to $9\frac{1}{2}$ in. long and $2\frac{7}{8}$ in. broad, elliptic, coriaceous, with acute apex and cuneate base; fls. 11 in dome-shaped medium loose truss 9 in. across, funnel-campanulate, 6-lobed, $3\frac{3}{4}$ in. diameter, white with small rayed dorsal blotch of strong greenish-yellow (Nickerson 7.5Y 7.5/7); flowering end of June when flowers are not obscured by new growth.

Sunte Rock — cl. Form of *praestans*; (Geoffrey Gorer, Sunte House, Haywards Heath, Sussex, England); lvs. oblanceolate, up to 12 in. long, $3\frac{3}{4}$ in. broad, covered below with plastered silvery-brown indumentum, petiole up to $\frac{1}{2}$ in. across; fls. 18–20 per compact truss, obliquely-campanulate with 6–8 petals, $2\frac{1}{2}$ in. diameter, $1\frac{3}{4}$ in. long, transparent white but strongly streaked, flushed and veined with R.H.S. Colour Chart, Purple Group 58A and 58B, upper throat blotched with darker red-purple colouring—Red-Purple Group 60A overlaid with Red-Purple Group 59A; calyx rudimentary. P.C. (R.H.S.) 1969.

Suva — cl. Form of *vaseyi:* (raised by Lionel de Rothschild, exhibited by Edmund de Rothschild, Inchmery House, Exbury, nr. Southampton, Hants., England); fls. opening before the leaves, widely funnel-shaped,

up to 2 in. diameter, in numerous 6- to 7-flowered clusters, in bud R.H.S. Colour Chart, Red-Purple Group 62A, paling on opening to 62C, throat almost white with an occasional very sparse spotting with dark red-purple; calyx green fringed with fine glandular hairs. A.M. (R.H.S.) 1969.

a Tenino — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact, up to 2 ft. high; lvs. 1½ in. long by ⅞ in broad; fls. in clusters of 2, hose-in-hose, up to 3 in. diameter, strong reddish-purple (Nickerson 10P 5/10); flowering late May–early June.

a Tico Tico — cl. 'Helen Close' × 'Purple Splendor'; (W. L. Guttormsen, Canby, Oregon, U.S.A.); evergreen, compact, up to 2 ft. high; lvs. 1½ in. long, ¾ in. broad; fls. in clusters of 2–3, hose-in-hose, to 2½ in. diameter, strong reddish-purple (Nickerson 10P 5/10); flowering in May.

Tom Koenig — cl. (*racemosum* × *keiskei*) × *keiskei*; (raised by G. G. Nearing, introduced by Thomas W. Koenig, Ashbury Park, New Jersey, U.S.A.); plant 3 ft. high in 10 years; lvs. up to 2 in. long, ¾ in. broad; fls. pale pink, densely clustered like *racemosum* but larger; flowering late April.

White Crest — cl. 'Crest' × *hyperythrum*; (raised at Exbury Gardens; grown by Brigadier C. E. Lucas Phillips, Danes Cottage, Danesway, Oxshott, Surrey); fls. pink in bud, opening white.

a Willem Hardijzer — cl. Seedling of Azalea (Mollis) 'Hugo Hardijzer'; (raised and introduced by Messrs. Willem Hardijzer & Co., The Nurseries, Reijerskoop, Boskoop, Holland); vigorous, slightly spreading free-flowering plant; lvs. deciduous, 2¾ in. long, 1 in. broad, light glossy green; fls. 14 per compact globular-shaped truss, 4¾ in. diameter, 4½ in. deep; corolla 2½ in. diameter, 2 1/10 in. long, funnel-shaped, margins slightly waved, Peach (H.C.C. 572) along mid-rib and throat, remainder Porcelain Rose (H.C.C. 620) flushed Scarlet (H.C.C. 19/1), blotch on upper lobe Orpiment Orange (H.C.C. 10). H.C. (Wisley Trials) 1966, A.M. (Wisley Trials) 1969; sent to trial by Messrs. Willem Hardijzer & Co.

AMPLIFIED DESCRIPTIONS

a Arcadia — cl. [Glenn Dale]; *indicum* × 'Malvatica'; (raised 1947 at the United States Bureau of Plant Introduction, Glenn Dale, Maryland, U.S.A.); vigorous upright and compact free-flowering evergreen plant; lvs. 1¾ in. long, ½ in. broad, medium-dark glossy green; fls. 2–3 in compact truss, 3–3½ in. diameter, 2¼ in. deep; corolla 1¾ in. diameter, 1⅝ in. long, funnel-shaped, between R.H.S. Colour Chart, Red-Purple Group 61D and Red-Purple Group 62A, deepening along mid-ribs to Red-Purple Group 61D, spotting on upper segments Red-Purple Group 60A. H.C. (Wisley Trials) 1969; sent for trial by Knap Hill Nursery, Ltd., Woking, Surrey, England.

Constant Nymph — cl. *campanulatum* ♀ × 'Purple Splendour'; (raised 1931 and introduced 1955 by Knap Hill Nursery, Ltd., Woking, Surrey, England); vigorous, upright, fairly compact and slightly spreading free-flowering plant; lvs. 5–6½ in. long, 2–2½ in. broad, dark dull green; fls. 12–14 per compact dome-shaped truss, 7½ in. diameter and 7½ in. deep; corolla 4–4½ in. diameter, margins waved and slightly frilled, funnel-shaped, white with faint flush of R.H.S. Colour Chart, Red-Purple Group 72C along centre of segments, colour fading slightly with age, buds white tinged and flushed Red-Purple Group 72C. H.C. (Wisley Trials) 1969; sent for trial by Knap Hill Nursery, Ltd., Woking, Surrey, England.

a Deben — cl. Parentage unknown; (raised by Royal Horticultural Society's Garden, Wisley, Ripley, Woking, Surrey, England); vigorous, upright and compact, free-flowering plant; lvs. 2½–2¾ in. long, 1 3/10 in. wide, medium-dark glossy green; fls. 15–18 in compact globular-shaped truss, 5 in. diameter, 5 in. deep; corolla 2½ in. diameter, 1 7/10 in. long, funnel-shaped, margins frilled, R.H.S. Colour Chart, Yellow-Orange Group 15C lightly tinged Yellow-Orange Group 15B, large blotch on upper petal extending to tip of segment Yellow-Orange Group 23A. H.C. (Wisley Trials) 1963; A.M. (Wisley Trials) 1969; sent for trial by R.H.S.

a Hatsugiri — cl. [Kurume]; parentage unknown; vigorous evergreen, compact and spreading, very free-flowering plant; lvs. 1 3/10 in. long, ½ in. broad, light glossy-green; fls. 2–3 per truss, 1⅛–1¼ in. diameter, 1 in. long, funnel-shaped, margins very slightly waved, near R.H.S. Colour Chart, Red-Purple Group 74B, very occasional slight spotting on upper petal in throat Red-Purple Group 60B. A.M. (Wisley Trials) 1956. F.C.C. (Wisley Trials) 1969 when sent by Knap Hill Nursery Ltd., Woking, Surrey, England.

Kluis Triumph — cl. hybrid of *griffithianum*; (raised and introduced by Anthony Kluis, formerly of Boskoop, Holland); plant of vigorous upright and spreading habit; lvs. 7¼ in. long, 2¼ in. broad, dark dull green; fls. 15–18 in compact dome-shaped truss, 7–8 in. deep and 7 in. diameter; corolla 2½ in. diameter, 2 in. long, campanulate with expanded mouth, margins slightly waved with tips recurved, R.H.S. Colour Chart, Red Group 53B, slightly lighter colour along mid-ribs and in throat, fairly extensive spotting on upper petal back. H.C. 1968 and A.M. 1969, both after trial at Wisley; sent by F. Street, Heathermead, Nursery, West End, Woking, Surrey, England.

a Lady Rosebery — cl. [Knap Hill]; parentage unknown; (raised by the late Anthony Waterer, introduced (1944) by Knap Hill Nursery, Ltd., Woking, Surrey, England); vigorous upright and slightly spreading, free-flowering deciduous plant; lvs. 2–2½ in. long, 1 3/10–1⅝ in. broad, light to medium glossy green tinged red; fls. 25–30 in compact globular-shaped truss, 4½ in. diameter, 3½ in. deep; corolla 2¼–2½ in. diameter, 1¾–2 in. long, funnel-shaped with petals recurved, margins slightly

waved and frilled, R.H.S. Colour Chart, Red Group 46D with touches of Red Group 45C, mid-rib on older florets Red Group 48C, younger florets with slight orange tinge overlying the red, heavy blotch on upper petal Orange Group 28B. H.C. (Wisley Trials) 1969; sent for trial by Knap Hill Nursery, Ltd., Woking, Surrey, England.

a Lorna — cl. [Gable Hybrid]; 'Caroline Gable' × 'Louise Gable'; (raised by Joseph B. Gable, Stewartstown, Pa., U.S.A.); vigorous upright and compact, free-flowering evergreen plant; lvs. 1⅝ in. long, ¾ in. broad, very light green; fls. 2–3 per compact truss 2½–2¾ in. diameter, 2 in. deep; corolla 1¼–1½ in. diameter, 1 1/16 in. long, funnel-shaped, double, R.H.S. Colour Chart, Red-Purple Group 62A and deepening in centre of floret, very faint spotting on upper segments Red-Purple Group 59C. H.C. (Wisley Trials) 1969; sent for trial by John Waterer, Sons & Crisp, Ltd., The Nurseries, Bagshot, Surrey, England.

az Ria Hardijzer — cl. *racemosum* × 'Hinodegiri'; (raised by W. H. Hardijzer and introduced by P. W. Hardijzer, The Nurseries, Boskoop, Holland); vigorous, upright and fairly compact, free-flowering plant; lvs. ¾ in. long, ⅜ in. broad, dark dull green tinged red; fls. up to 19 per compact globular-shaped truss, 1¾ in. diameter, 1¼–1½ in. deep; corolla funnel-shaped, margins slightly waved, 1–1⅛ in. diameter, 1 in. long, R.H.S. Colour Chart, Red-Purple Group 66C tinged very lightly round margins and in throat with Red-Purple Group 67C, light spotting on upper petals into throat Red-Purple Group 61. H.C. (Wisley Trials) 1969; sent for trial by Messrs. Willem Hardijzer & Co., The Nurseries, Boskoop, Holland.

Southern Cross — cl. *discolor* × 'Lodauric Iceberg'; (raised by A. F. George, Hydon Nurseries, Ltd., Hydon Heath, Godalming, Surrey, England); vigorous upright and compact free-flowering plant; lvs. 8 in. long, 2¼–2½ in. broad, dull dark green; fls. 10 per compact globular-shaped truss, 6 in. diameter, 7 in. deep; corolla 4½ in. diameter, 3½ in. long, funnel-shaped, margins waved, white lightly flushed R.H.S. Colour Chart, Purple-Red Group 65B on lower segments and more heavily on 3 upper segments, mid-ribs Red Group 55A, throat Red Group 45C with spotting of Red Group 53A and soft yellowish-brown spotting spreading outwards and becoming much fainter. H.C. (Wisley Trials) 1969; sent to trial by Hydon Nurseries, Ltd.

CORRECTION

'Joan Thompson'. The raiser of this plant is W. M. Spry, Olinda Road, The Basin, Victoria, Australia, and not A. J. Teese as stated in the *Rhododendron and Camellia Year Book*, p. 149 (1968).

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NOTE.—Members of the Council are Members of this Committee.

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Figures in bold type refer to illustrations.
(*) *denotes Award made after Trial.* (a) *denotes Azalea.*

In order to save space the camellias with colour references on pages 56–8, rhododendrons growing in Scandinavia and listed on pages 122–4, and rhododendrons listed in the Additions to the International Rhododendron Register 1968–69 on pages 197–210 have not been included in the Index.