DAVIDSONIA

VOLUME 4 *NUMBER 2* *Summer 1973*

RHODODENDRONS ON CAMPUS

Cover

A portion of the Tantalus Range with the left flank of Black Mountain in the right foreground. One of the many vistas seen from the Point Grey Campus.

DAVIDSONIA

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Introduction to the Rhododendrons on Campus

ROY L. TAYLOR

I suppose there is no other single plant on the campus at The University of British Columbia that people view with more delight each year than the genus *Rhododendron*. Rhododendrons represent the most widely used landscape plant on the campus, and a rich mixture of both species rhododendrons and hybrid rhododendrons are to be found in nearly every corner. The use of rhododendrons as important landscape elements at The University of British Columbia goes back some 25 years to the immediate post-war period after World War II. A major development of the campus at the University took place at that time. At the same period that the physical development occurred, considerable care was taken to provide the students, staff and the visitor with a pleasant landscaped environment. Rhododendrons played an important part in providing this environment. Prior to World War II few rhododendrons could be found on the campus. An exception were a few *R.* 'Cunningham's White' *(arboreum* f. *album* × *caucasicum)* planted near the Geography Building (the old Applied Science Building).

One of the principal areas of focus of interest in the genus on the campus can be found near Crescent Road and the Triangle area east of the Faculty Club and Rose Garden complex. It is in this area that the rhododendrons, many of them fine specimens of species from the Royston Nurseries on Vancouver Island, can be seen. These rhododendrons form the principal understorey shrub in small pockets of native west coast conifers, and appear to be completely at home and naturalized in that environment. Such plantings clearly indicate how well-suited the west coast conditions are for the culture of rhododendrons. From March through June it is always a delight to wander through this area and see rhododendrons growing at their best. A mass planting of rhododendrons can be found near the bus stop on Crescent Road. These plants, origin-

Rhododendron vernicosum, a variable member of the Fortunei subseries of series Fortunei. A native of Yunnan and Szechwan occurring between 9,000 and 14,000 feet elevation. A plant of good form very suitable for understorey plantings and as a specimen shrub in the larger home garden.

ally placed in this region by Dr. John Neill, are *Rhododendron calendulaceum* (s. Azalea, ss. Luteum)[1] seedlings grown originally from material obtained from the international seed exchange. These azaleas are most colorful in their various tones of yellows, oranges and reds in the spring, and in the fall present a similar kaleidoscope with the coloration of leaves from russet to dark red and golden yellow. The spring show of rhododendrons in this area is enhanced by a collection of daffodils that are found in the Triangle area.

Other areas contain special collections of rhododendrons, and I suppose one of the most enjoyable walks on the campus to see rhododendrons is that taken through the very pleasant surroundings of the Place Vanier Residence complex. It is in this region that the rhododendron is used to best advantage, both in mass plantings and as specimens, combined with some unusual tree specimens and ground cover arrangements. Some of our best hybrid specimens can be seen in this general area. There has been a constant attempt to provide a progression of form and texture and a succession of bloom by massing low, medium and tall forms, representing a variety of leaf shapes and sizes, in large free form beds under the native conifers. Perhaps the single best example of this landscape form is seen in the gardens of the president's residence. Particular attention was given to the development of transition plantings linking formal free form gardens with the surrounding natural woodland.

Large showy beds of both species and hybrids can be found in and around the Buchanan Building complex. Two striking beds of the red-flowered species; *Rhododendron yunnanense* (s. Triflorum, ss. Yunnanense) and *R. davidsonianum* (s. Triflorum, ss. Yunnanense), respectively, can be seen on the west side of the building. Two mass plantings of *Rhododendron fortunei* (s. and ss. Fortunei) and *R. decorum* (s. and ss. Fortunei) are found at the northwest corner near the entrance of the plaza. In addition to the plantings already mentioned a list of other plantings in the vicinity of this building illustrates the diversity of both species and hybrids used in landscaping at UBC: A. Species; *R. indicum* (s. Azalea, ss. Obtusum), *R. occidentale* (s. Azalea, ss. Luteum), *R. racemosum* (s. Scabrifolium), *R. augustinii* (s. Triflorum, ss. Augustinii), *R. catawbiense* 'Grandiflorum' (s. Ponticum, ss. Ponticum); B. Hybrids; *R.* 'Elizabeth' (*forrestii* var. *repens* × *griersonianum*)[2], *R.* 'Coral Bells' (known as 'Kirin', a Kurume × *kaempferi* hybrid), *R.* 'Sea Shell' (Kurume × *kaempferi* hybrid), *R.* 'Kathleen' (a Malvatica × *kaempferi* hybrid), *R.* 'Blue Tit' (*impeditum* × *augustinii*), *R.* 'Johann Sebastian Bach' (a Kurume × *mollis* hybrid), *R.* 'Lilac Time' (*diaprepes* × 'Purple Splendour'), *R.* 'Cynthia' (*catawbiense* × *griffithianum*), *R.* 'Lady Primrose' (*campylocarpum* hybrid), *R.* 'C. B. Van Nes' ('Princess Juliana' × 'Florence Smith'), *R.* 'America' (parentage unknown), *R.* 'Louis Pasteur' (parentage unknown), *R.* 'Loder's White' (*arboreum* var. *album* × *griffithianum*), *R.* 'English Roseum' (a form of the *catawbiense* hybrid, 'Roseum Elegans').

Some of the largest rhododendrons are found in the areas already discussed, however, a specimen of *Rhododendron* 'Caractacus' (a *catawbiense* hybrid known as one of the ironclads), found on the east side of the old Arts Building, is nearly 20 feet in height. The largest azaleas, reaching more than ten feet in height, are found in the naturalistic shrub corner of the Main Library frontage, north of the Chemistry Building. Included here are the fragrant *R. luteum* (s. Azalea, ss. Luteum) which colors well in the fall season.

Rhododendrons are occasionally used in special circumstances such as the *R. kaempferi* hybrids (s. Azalea, ss. Obtusum) in the landscaped portions of the Nitobe Memorial Garden. These specimens provide soft patches of color in the garden during the spring and summer seasons.

Future landscape development at The University of British Columbia will continue to utilize rhododendrons as a major part of the development program. Recent plantings in the South Campus have emphasized the use of azaleas for roadside verge plantings. As the playing fields and the extensive, but ugly, parking lot areas become landscaped, it is our hope that rhododendrons may well play again a significant role in providing both beauty as well as protection for the casual visitor and user of such facilities.

One of the real attributes of rhododendrons which is often overlooked is their very fine evergreen foliage. Some superb mosaic leaf patterns are found in areas where several types of rhododendrons have been planted along with other vegetation. Since much of our winter time in the Vancouver area is spent in rather gray, wet days, the consideration of the details of the green vegetation is an important one in the development of any landscape planning. It is our hope that through the development of the many new species and forms being accumulated in our species collection, new and interesting leaf forms as well as flowering forms of the genus can be added to our already fine collection of rhododendrons on the U.B.C. campus.

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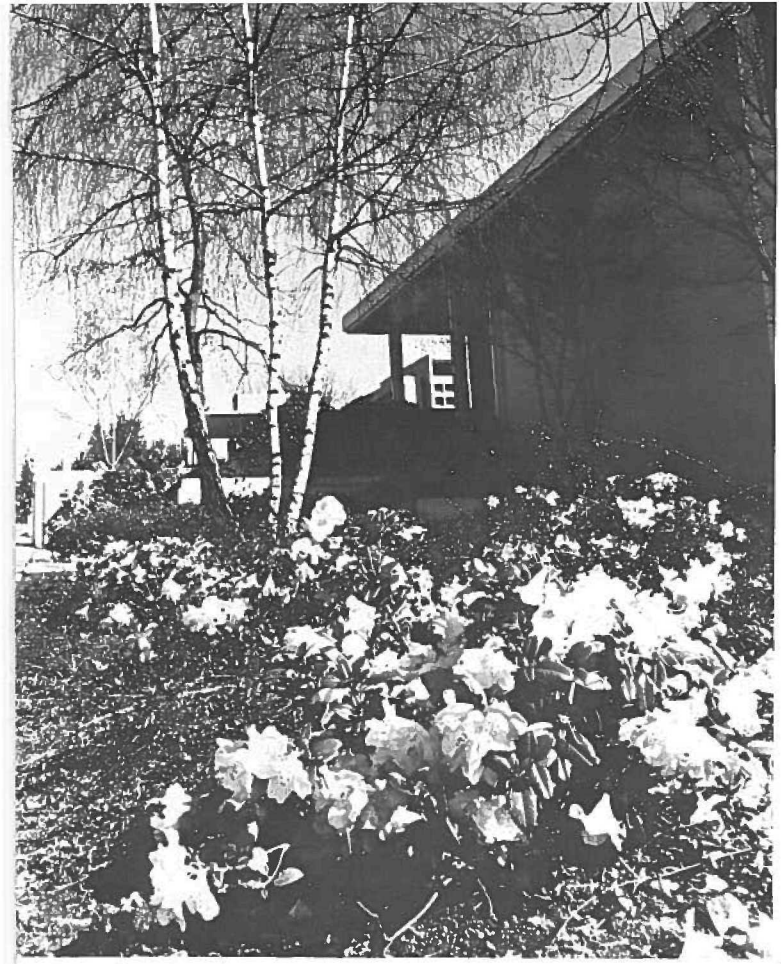
[1]The series and subseries according to The Rhododendron Handbook, Part One: Rhododendron Species in General Cultivation published by The Royal Horticultural Society in 1967.

[2]parentage of hybrids are given in parentheses.



The display bed on the northwest side of the Frederic Wood Theatre featuring *Rhododendron* 'Cilpinense' (*ciliatum* × *moupinense*). The plants often flower in late February and March providing a complimentary splash of colour with the early spring bulbs.

Evaluation and inventory record taking in the permanent collection of rhododendron species in the nursery. Mr. James MacPhail (left), and Mr. James O'Friel (right) checking record forms produced by the computer program BGAS.

Rhododendron Species
—A Developing Collection at U.B.C.

ROY L. TAYLOR

In the development of the Botanical Garden program, emphases were placed on three objectives: 1) research, 2) education and 3) public information. In order to achieve any of these three objectives it is necessary to develop core collections of plant groups. A prime example is the Rhododendron Species Collection being developed at U.B.C. Its development is designed to meet the three objectives of the Botanical Garden program entitled "Plants and Man". The decision has to be made regarding the development of any plant collection as to the parameters of the collection. Clearly, a botanical garden cannot amass collections of all plants from throughout the world. This is not only impossible to achieve but is not necessarily a desired objective. The genus rhododendron is valuable in having special interest to both researchers and the public at large in the coastal region of western North America, as the climate is conducive to the propagation and maintenance of a major portion of the types of rhododendrons found throughout the world. The very tender members of the tropical sections, such as Vireya, must be grown under glass house conditions. In addition, many of the large-leaved species belonging to the section Falconeri must have some protection, but a number can be grown with some degree of success although there is often damage during particularly severe winters.

In the reorganization of the Botanical Garden and the development of the objectives for our "Plants and Man" program, consideration was given to the parameters of the rhododendron collection to be developed at U.B.C. After considerable investigation and deliberation it was decided to restrict our collection in the Botanical Garden to rhododendron species. Hybrids will be used extensively for ornamental plantings on the campus but will be the primary responsibility of the Department of Physical Plant and their nursery operation, which is designed to supply landscape and maintenance material for the campus ornamental plantings. As a result of this decision an area was established in the new Botanical Garden nursery and was developed for the establishment of a permanent collection of rhododendron species. This specific planting was inaugurated on September 27, 1971 when Dr. Douglas M. Henderson, Regius Keeper of the Royal Botanic Garden of Edinburgh, planted the first rhododendron in the new site (see DAVIDSONIA, Vol. 2(3):29-30).

The Rhododendron Species Collection was initiated back in the early 1950's by Dr. T. M. C. Taylor and Dr. J. W. Neill, when plans were made to bring a major collection of plants from Royston Nursery on Vancouver Island to the U.B.C. campus. The initial collection of 1,000 rhododendrons donated by the owners of Royston Nurseries, Mr. and Mrs. T. E. Greig, served as the nucleus of the permanent collection of rhododendrons at U.B.C. In 1964 the University cooperated with the new Rhododendron Species Foundation, of Eugene, Oregon, in serving as the principal propagator of the plant material that was being obtained by the Foundation from the major gardens in Great Britain. This cooperative program has continued to the present time and has become more active in the last several years. Mr. P. H. Brydon has become the Secretary of the Rhododendron Species Foundation, and has established a permanent home for the collection at Salem, Oregon. An active interchange of materials has taken place between the Foundation collection and our own collection.

In 1971 and 1972 the University Botanical Garden initiated a more active acquisition program through the help of the Vancouver Chapter of the American Rhododendron Society, who provided a grant to assist in the development of the species collection. In addition, a grant from the Stanley Smith Horticultural Trust was instrumental in assisting the purchase and movement of dwarf rhododendrons suitable for rock garden development from private local collections. Mr. Ken Wilson, of the Botanical Garden staff, spent considerable time in Britain developing additional contacts for exchange of materials and an active aquisition program of original material has been achieved through participation of the Botanical Garden in several international plant collecting expeditions. The interest and enthusiasm by both the Vancouver Chapter of the American Rhododendron Society and rhododendron buffs in The Alpine Garden Society of

British Columbia have served to add some unusual and interesting material to our collection. Mr. James MacPhail, of our staff, has developed over the past year a specialized peat bed garden adjacent to the rhododendron species collection which is now being used to cultivate some of the peat-loving species.

The current species collection at U.B.C. consists of 269 species with an additional 110 infraspecific forms or varieties of special merit. The total collection that has been established in permanent plantings is now more than 2500 plants. In addition, an active program of propagation of plant materials from not only the permanent collection in the Nursery but also particularly good forms of species in the general campus collection has been initiated. This program is designed to provide additional material for testing and evaluation and for dissemination to growers through the Vancouver Chapter of the American Rhododendron Society. The basic aim of the collection is to provide a major gene pool of rhododendron species on which research, testing, evaluation and propagation of materials can be achieved.

The Botanical Garden initiated in 1972 a program of evaluation of the species in the collection. This evaluation consists of a five-page format designed to provide such information as the age of plant, origin of the material, type of propagation, description of the site, record of weather conditions, indication of weather damage, time of flowering and suitability for the home garden (see form below). In addition to these general characteristics, the morphology of each plant is evaluated. An extensive series of measurements and characteristics are taken for each plant. A sample form and the guide for the contributor to the development of rhododendron species records can be obtained by contacting the Botanical Garden office. It is our hope that with an annual evaluation of the rhododendrons in our collection, pertinent information for use by breeders and by the home gardener will be developed and a greater appreciation and use of rhododendron species will be made. Of particular importance to the plant breeder will be the developing inventory of morphological characters that will be desirable in future breeding programs.

The permanent collection in the Botanical Garden Nursery is arranged according to the Rhododendron Handbook published by The Rhododendron Horticultural Society. Mass planting of species propagated from the collection will be established in the Marine Drive Garden component of the main display gardens. This is a long-term and continuing project but a good start has been made toward the development of material for this display. Continued efforts will be made to obtain species material of excellent quality for incorporation into the collection at U.B.C.

UBC EVALUATION PROGRAM FOR RHODODENDRON SPECIES—1973

Observer's initials:.....

NAME:

Species.....

Subspecies or variety.....

Cultivar.....

Special form.....

SERIES/SUBSERIES.....

AGE.....ORIGIN OF MATERIAL.....

PROPAGATION (check one)

seed.....cuttings.....understock.....graft type.....

SITE DESCRIPTION (check one in each column)

open.....northern exposure.....peat.....

semi-shade.....eastern exposure.....loam.....

full-shade.....southern exposure.....gravel.....

western exposure.....

WEATHER CONDITIONS

General winter conditions.....

Lowest winter temperatures.....date.....

WINTER DAMAGE (indicate 1, 2 or 3 - 3 indicates complete kill)

stem.....leaf.....bud.....

FLOWERING

First date.....Last date.....Second flowering.....

SUITABILITY FOR HOME GARDEN (rate 1 - 5, 5 indicates most suitable)

(check only those applicable)		Rating
General garden planting	.....	.....
Mass or background planting	.....	.....
Patio or enclosed planting	.....	.....
Container planting	.....	.....
Specimen shrub or tree	.....	.....

1

2

3

4

5

6

Phytophthora Root Rot of Rhododendrons

CHRISTOPHER J. MARCHANT

Many growers of rhododendrons in home gardens may not know of the existence of a very widespread and destructive disease which can attack and kill their plants. Furthermore, it may not be widely appreciated how almost impossible it is to eradicate the disease when once it appears. Prevention is certainly better than the cure. The disease is known as Phytophthora Root Rot or Wilt and is first noticed as wilted, drooping leaves on the twigs.

Botanically the genus *Phytophthora* is a fungus very much associated with water or wet conditions. Its life cycle is tailored to a semi-aquatic environment and this is why the disease is prevalent in wet soils and in wet summer seasons. In some species the thread-like fungal hyphae growing near the soil surface will, when ready to reproduce, grow vesicles at the ends of the hyphae. When these zoosporangia, as the vesicles are called, are mature they become detached and if they come in contact with sufficient soil water they burst open, releasing small motile zoospores. These single-celled spores, each with two hairlike flagellae, can swim around in the wet soil thus bringing them in contact with *Rhododendron* roots. If spores get into drainage or flood water, dispersal can be over long distances.

Usually the spores encyst and rest for a while after swimming. They then germinate into fungal hyphae which attack the adjacent roots of the host plant, entering and passing through the cells and rapidly killing the tissues.

In other species sporangia are produced aerially on hyphae which protrude through the epidermis of the plant. Wind then carries the zoosporangia to wet soil.

The life cycle is such that the fungus does not rely on the presence of host plants to survive. Many *Phytophthora* species can survive saprophytically for a while on decaying soil humus and, of course, encysted zoospores can survive a long time under unfavourable conditions for growth, until conditions become wetter. In view of this spore resistance it should be remembered that, particularly in locations where *Phytophthora* is present, all tools and machinery should be cleaned before transferring to another site.

Unfortunately the chemicals known to kill *Phytophthora* are also toxic to the host plants. Hence, only preventive measures can be used. This involves treating beds before planting with a soil fumigant—i.e., methyl bromide. Partial prevention of infestation and spread is subsequently achieved by regularly drenching planted beds with Truban or Benlate solution (3 oz. per 100 gallons) at the rate of one quart per square foot.

At the moment careful sanitary cultural methods are the best known prevention. Heavy, wet soils with poor drainage should be avoided. Planting beds should be raised. Irrigation should be avoided, especially in hot weather (80°F or more), and a mulch at least one inch thick can help preserve existing moisture and lower root temperature. If irrigation must be applied the water *must not* be drawn from drainage ditches or ponds which might be contaminated.

One of the difficulties when withholding irrigation from rhododendrons during dry spells is to determine at what point soil dryness becomes critical for survival of the shrubs and hence, when watering should

Opposite:
Fig. 1 and 2. *Rhododendron sutchuenense* (s. Fortunei ss. Davidii), two colour phases.
Fig. 3. *R. planetum* (s. Fortunei ss. Davidii).
Fig. 4. *R. calophytum* (s. Fortunei ss. Calophytum).
Figs. 5 and 6. Two phases of *R. fargesii* (s. Fortunei ss. Oreodoxa).

Overleaf:
Fig. 1. *Rhododendron glaucophyllum* var. *luteiflorum* (s. and ss. Glaucophyllum).
Fig. 2. *R. glaucophyllum* var. *rubiforme* (s. and ss. Glaucophyllum).
Fig. 3. *R. stewartianum* var. *aiolosalpinx* (s. and ss. Thompsonii).
Fig. 4. *R. dictyotum* (s. Lacteum).
Fig. 5. *R. russatum* (s. Lapponicum).
Fig. 6. *R. cuneatum* (s. Lapponicum).

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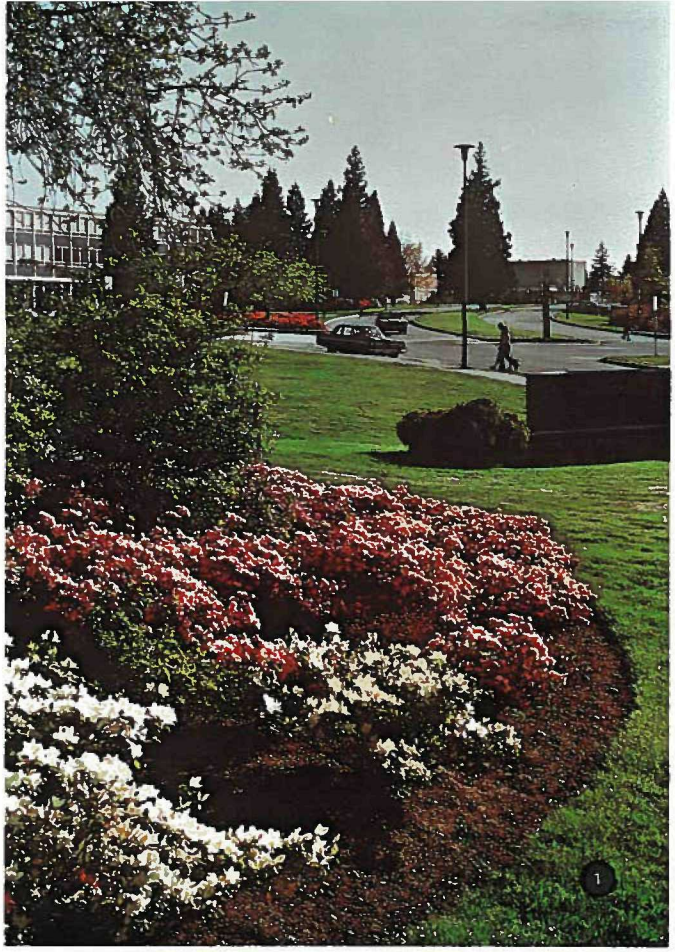


commence. Despite its very effective use in soil moisture retention, a surface mulch can conceal from direct observation the moisture condition of the soil beneath it.

There are mechanical methods of monitoring soil moisture and one of these is the "soil moisture block" method which is used in the UBC Botanical Garden. The block consists of an electrode embedded in a cube of gypsum about 1½ inches square. This moisture sensor can be buried at varying depths up to three feet. With rhododendrons care should be taken to locate some blocks quite near (within 6") of the soil surface along with others at greater depth.

Insulated twin-core leads from the block are left protruding at the soil surface and can be connected to a light-weight portable moisture meter. The latter measures resistance in ohms and this figure is converted to "percentage available soil moisture" on a scale indicated by a needle. The critical point at which irrigation must commence varies according to type of soil from 25% (clays) to 65% (sands). Watering is continued until the reading returns to at least 95%. The table below indicates critical moisture percentage levels. It also indicates depths at which to locate soil blocks in different types of soil management.

Depth to Bury Soil Blocks				
Tab Color	Red	Blue	Green	White
Block Depth	Shallow	Medium	Deep	Very Deep
Golf Courses	2"	6"	Not Required	
Lawns	3"	8"	"	"
Athletic Fields	5"	10"	"	"
Shallow Crops	4"	10"	"	"
Medium Crops	6"	12"	"	"
Deep Crops	6"	12"	18"	Not Req'd
Very Deep Crops	8"	14"	24"	"
Trees Citrus	8"	16"	24"	36"

Procedure to Operate Moisture Meter

1—Connect lead wires to binding posts.
2—Press "To Cal." button.
3—Rotate "Cal." knob until needle rests on right end of scale.
4—Press *both* buttons to read.

For the Following Soils-Irrigate When Bouyoucos Meter Reads:——

Sands	65%
Loamy Sands	57%
Sandy Loams	50%
Fine Sandy Loams	46%
Very Fine Sandy Loams	43%
Loam	36%
Silty Loam	34%
Clay Loam	30%
Sandy & Silty Clays	25%

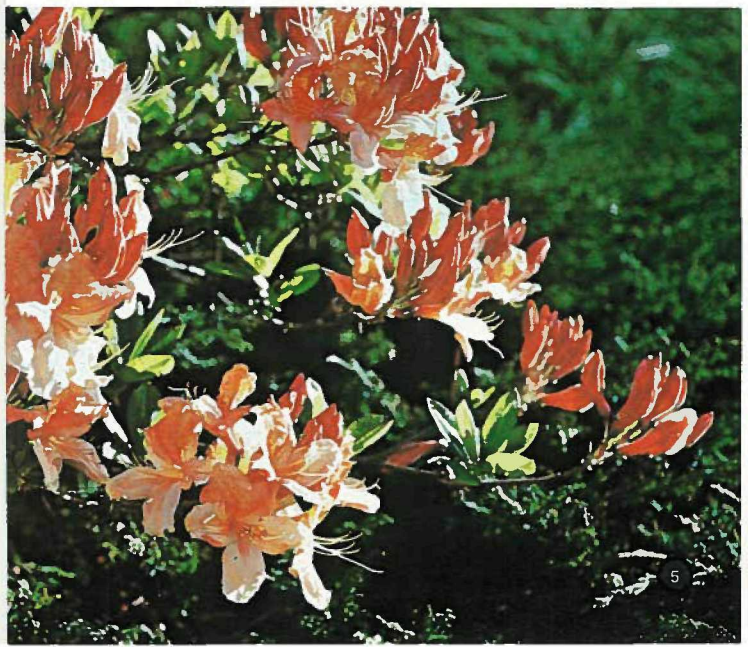
Continue Irrigation Until Meter Reads 95% to 100% Available Moisture at Desired Block Depth

Propagating media should be very well drained, using coarse sand, perlite or styrofoam. Bark fibre has been found to be a very successful constituent and Dr. Harry Hoitink, of Ohio Agricultural Research and Development Center, recommends a bark/peat mixture containing 75% bark with ⅛" particle size. This gives a maximum air space of 20% which is detrimental to the fungus. Sphagnum peat may be incorporated but the use of sawdust in the mixture is not recommended.

Continued on page 26

Overleaf:
Fig. 1. Rhododendrons used in landscaping the south side of Crescent Road, near Chancellor Boulevard.
Fig. 2. *R. arboreum* ssp. *cinnamomeum* (s. and ss. Arboreum).
Fig. 3. *R. strigillosum* (s. Barbatum ss. Maculiferum).
Fig. 4. *R.* 'Caractacus' (*catawbiense* hybrid), probably the tallest rhododendron on the campus.

Opposite:
Fig. 1. *Rhododendron degronianum* 'Dalriada' (s. Ponticum ss. Caucasicum).
Fig. 2. *R. vellereum* (pale pink form) (s. and ss. Taliense).
Fig. 3. *R. bainbridgeanum* (s. Barbatum ss. Crinigerum).
Fig. 4. *R. beanianum* var. *compactum* (s. Neriiflorum ss. Haematodes).
Fig. 5. *R. calendulaceum* (s. Azalea ss. Luteum) in a group planting on the north side of Crescent Road, U.B.C. campus.
Fig. 6. *R. 'Elizabeth'* (*R. forrestii* var. *repens* × *R. griersonii*) on north side of Buchanan Building, U.B.C. campus.



What Does That Label Mean?

ROY L. TAYLOR

One of the frequently asked questions by the visitor to the Garden is "What does that label mean?" This is particularly true of people who see the rhododendron species collection and the permanent labels which are associated with this collection.

When the new Department was initiated in 1968 the problem of maintenance of accession records was of major concern. To achieve an orderly development of our records an accession system was developed and a companion computer program was established entitled BGAS*. At the same time an accession numbering program was initiated for all material in the Botanical Garden. Each accession number consists of three parts. First, a five-digit unique number that has been assigned to an individual or collection of plants that were obtained for the Garden. This is followed by a three-digit number which indicates the source of the material, that is, the commercial source, individual or other source from which the material was obtained. Thirdly, a two-digit number is assigned indicating the year in which the accessioned material was incorporated into the plant collection.

The current program calls for a metal photo-engraved label to be initiated once each new seedling or scion or plant has been established. This small label accompanies each individual rhododendron throughout its propagation and transplant program, and eventually it is punched and tied to the woody plant as its permanent accession label. When the plant or group of plants from each initiation is incorporated into the main rhododendron collection, the individual or group planting then is given a new permanent display label made by an engraving process on a plastic laminate. This engraved plastic label is supported by a plexiglass stake and carries both the genus, species and infraspecific taxon information, as well as the series and subseries to which the plant belongs, and finally, the accession number from The University of British Columbia Botanical Garden. In some cases, if it has been propagated from a special award-winning form or special collection number such as a Kingdon-Ward 1937 Expedition Number, e.g. K. W. 13165, this information will also be incorporated on the label. It is our hope that the labelling system should enable a user of the collection to quickly reference any material to the Rhododendron Handbook.

One source number that is of particular interest to the user of the collection is 051. This source number indicates that the material has been propagated by the U.B.C. Botanical Garden from an existing accessioned collection. This is, of course, an important process for the Garden as it is the one way in which we can select and develop species which are particularly suitable and adapted to the climatic regimes of this area. In addition to the development of new material propagated from the collections, it is envisaged that research programs will be developed to provide for additional methods of obtaining plants through hybridization and selection. In the first few years special emphasis will be directed to the increasing of our understanding of the techniques most suitable for propagation and for the successful development of all kinds of rhododendron materials.

Much information is contained in the BGAS system and the accession number on the label gives the user the key to obtain much more information already stored in the system about that particular plant. The Garden normally produces a complete printout of its holdings twice a year. However, specialized listings, such as a compilation of all the rhododendron material and the inventory of the genus in each component of the Garden, can be obtained at any time. The flexibility of BGAS enables easy input of new accessioned material and editing of existing files, thus listings are up to date and new labels can be made from the current output.

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*UBC Botanical Garden Accession System (BGAS) by Roy L. Taylor, Stephen Sziklai and Annie Y. M. Cheng. January 1973. Technical Bulletin No. 2. Published by The Botanical Garden, The University of British Columbia, Vancouver, British Columbia, Canada V6T 1W5.

Permanent photo-engraved metal accession label attached to plexiglass stake. The label accompanies the plant throughout its life, here seen in the propagating bed.

The permanent photofoil label has now been perforated and is attached to the woody plant. Each plant in the collection has such a label. The display label is seen in front of the plant.

The permanent display label made by engraving a laminated plastic material is bonded to a plexiglass stake. Information contained on the label includes genus, species, infraspecific name(s), other special information, i.e. this plant from a Forrest collection no. 27089, the series and subseries, and the UBC Botanical Garden accession number.

Societies Directly Concerned with the Genus Rhododendron

The genus *Rhododendron* is a widely used ornamental throughout the Northern Hemisphere and a number of specialized societies have been developed that relate directly to this genus. In Canada, at the present time, there are two specifically organized societies concerned with the propagation, dissemination, evaluation and promotion of the use of rhododendrons as interesting plants in the garden.

The Lower Mainland of British Columbia has long been a principal growing area for rhododendrons in Canada and a chapter of the American Rhododendron Society was organized by growers of rhododendrons in this region nearly 25 years ago. The chapter is a very active one and in 1970 hosted the American Rhododendron Society annual convention in Vancouver. The Vancouver Chapter holds monthly meetings, frequent plant sales and publishes a newsletter. A special study group was established in 1972 to undertake and evaluate the study of rhododendron species. Meetings have been held at the University, and field study of the rhododendron species collection in The University of British Columbia Botanical Garden Nursery has been part of this program. The current address of the corresponding secretary of the Vancouver Chapter of the American Rhododendron Society is listed below. Readers interested in this Vancouver group should contact Mrs. Rhodes.

More recently, rhododendron growers in eastern Canada formed The Rhododendron Society of Canada. This society was founded in 1971 and was helped in its infancy by the Royal Botanical Gardens in Hamilton. The society holds an annual show and produces a bulletin three times a year. One of the principal reasons for the development of the society was to search out and publicize information regarding hardiness in Rhododendrons (see editorial in the first issue of the Bulletin). Although initially there was some feeling of estrangement by the Pacific Coast rhododendron growers with the development of The Rhododendron Society of Canada, there has been a good acceptance of the society by Pacific Coast growers indicating that many of the problems are similar across Canada. The secretary-treasurer of The Rhododendron Society of Canada is found below.

The Rhododendron Species Foundation, with which The University of British Columbia has been closely associated for nearly 10 years, was a private interest group of rhododendron growers belonging to the American Rhododendron Society who had a special interest in developing and preserving a collection of rhododendron species of known value from gardens in Europe. Dr. Milton V. Walker, one of the prime movers, actively pursued the development of the Foundation and his enthusiastic initiative has led to the establishment of a Rhododendron Species Foundation collection at Salem, Oregon under the direction of Mr. P. H. Brydon, former Director of the Strybing Arboretum at San Francisco. The close relationship between the U.B.C. Botanical Garden and the Rhododendron Species Foundation has been elaborated on in the article entitled "Rhododendron Species—A Developing Collection at U.B.C.," starting on page 14. Persons desiring more information about the Rhododendron Species Foundation should contact the secretary at the address given below.

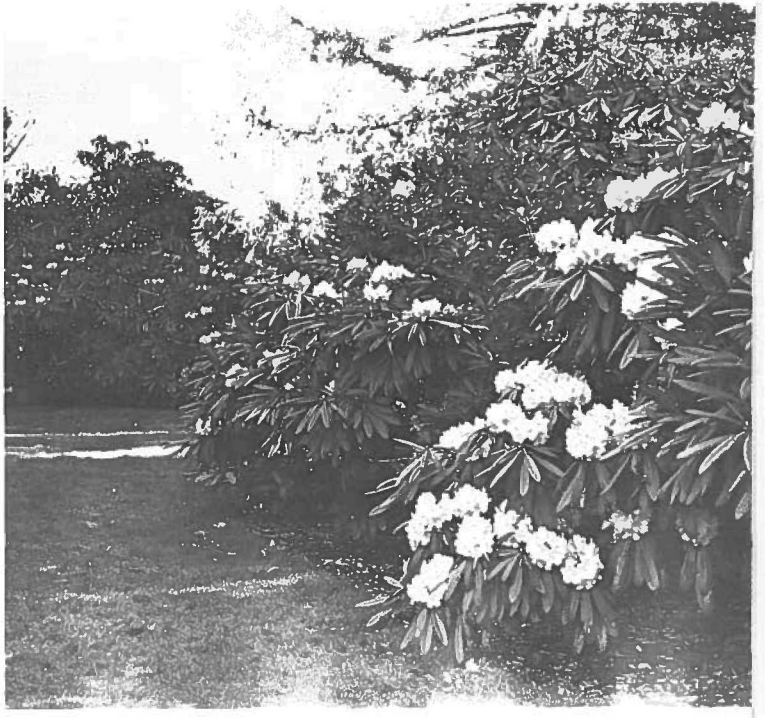
CONTACTS FOR SOCIETIES

Mr. P. H. Brydon, Secretary
The Rhododendron Species Foundation
Rt. 1, Box 748
Salem, Oregon 97304

Mrs. Jean Rhodes
Corresponding Secretary
Vancouver Chapter American Rhododendron Society
21471 Cherry Avenue
Maple Ridge, B.C.

Dr. H. G. Hedges
Secretary-Treasurer
Rhododendron Society of Canada
4271 Lakeshore Road
Burlington, Ontario

Opposite: *Rhododendron houlstonii* in a mature planting in the Place Vanier residence complex. This species belongs to the series and subseries Fortunei and is a native of S.W. China in Hupeh and Szechwan.



From page 20

If the following propagation procedure of Dr. Hoitink is followed *Phytophthora* should be avoided:

1. Propagate in sphagnum peat and perlite.
2. Transplant into sphagnum peat and sand; use coarse concrete sand from a gravel pit or river bottom.
3. Transplant in a bark mix, preferably more than 75% bark.
4. Use baskets or well-drained containers placed on gravel, not on plastic.

A search is going on for resistance to *Phytophthora* in rhododendrons in the hope of introducing resistance on a broad scale. Of scores of species and hybrids tested only a few hybrids such as 'English Roseum', 'Koster', 'Dr. Arnold Endtz' and 'Vulcan' show good, but not complete, resistance. Their roots are still attacked by the fungus but killing is slow and new roots are able to replace infected ones at a faster rate.

The disease is not confined to rhododendrons and azaleas. Other ornamentals, such as *Pieris, Chamaecyparis, Taxus* and *Pinus* can be affected and should be watched for wilt symptoms.

Until and unless good resistant strains can be produced growers must adhere to strict cultural methods, avoid areas with high summer temperatures and especially avoid irrigation at such periods. Only by stringent sanitary measures can the disease be avoided or controlled.

CLIMATOLOGICAL SUMMARY*

Data 1973	*April*	*May*	*June*
Mean temperature	47.65°F	54.15°F	56.65°F
Highest temperature	59°F	82°F	77°F
Lowest temperature	35°F	38°F	44°F
Grass minimum temperature	23°F	26°F	34°F
Total rainfall/No. days with rainfall	0.60"/7	2.05"/9	2.48"/13
Total snowfall/No. days with snowfall	nil	nil	nil
Total hours bright sunshine/possible	213.6/404.02	261.8/468.03	213.7/482.29
Max. wind speed (m.p.h.) for 1 hour/ direction	11/NW & SE	13/E & SE	15/E
Mean mileage of wind at 3'	67.2	87.9	77.3
Mean mileage of wind at 40'	97.4	126.6	111.2

**Site: The University of British Columbia, Vancouver, B.C. Canada*
Position: lat. 49°15'29"N; long. 123°14'58"W. Elevation: 342.6'

Opposite
A few of the fine specimen rhododendrons from the Triangle Garden area near the Rose Garden. Left: *Rhododendron* 'Robin Hood' (*calophytum* × *sutchuenense*). Right: *R. sutchuenense* (s. Fortunei, ss. Davidii) in the foreground.

'Plants and Man', the logo of the UBC Botanical Garden emphasizing the understanding of the interaction of plants and man through the achievement of the objectives of the Botanical Garden program.

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DAVIDSONIA

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