The Arboretum Bulletin

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Schibig Primrose Garden Open to Public

HERE IS YOUR CHANCE to help the University of Washington Arboretum and at the same time visit one of the finest primrose gardens in the Pacific Northwest. Mr. and Mrs. Walter Schibig will open their garden to the public for the week of April 19-26 for the benefit of the Arboretum. The hours will be from 2 to 5 in the afternoon and from 8 to 10 in the evening. If you cannot visit the garden during the afternoon take advantage of the opportunity offered to view it under the flood lights at night. Mrs. Schibig is outstanding as a grower of rare and beautiful primroses and in her quite unusual garden at Lawtonwood there will be thousands of them on dress parade. "The Schibig garden," says Mrs. Roy Page Ballard, chairman of the Primrose Garden Tour Committee, "is a real gem during primrose time." The admission charge will be 55 cents, which includes both federal and state tax. Tickets are now on sale.

Blueberries for Northwest Gardens

By W. D. SYDNOR, *Bellevue, Wash.*

EASTERN blueberries are truly dual purpose plants for Northwest gardens. They are ornamental in flower, fruit and foliage, the last particularly in the fall, and they yield the queen of berries.

The flowers are beautiful white bells, sometimes partly pink, on some varieties being nearly round and quite like those of the lily-of-the-valley; others have long bells, twice as long as they are wide.

The berries, too, are quite ornamental if you can leave them alone or save them from the birds, which is doubtful; I have seen colored photographs of plants that were very blue with fruit.

But their crowning beauty comes in the fall when they may vary from reddish-yellow to a shiny dark, purplish red. They hold the foliage for some time and the better they are grown the larger and finer the leaves. Here is one of the ways in which you can reap your reward for good care.

When planting them about the home grounds they should be spaced at least six feet apart since, because of their fibrous root system, they cannot stand much competition. Avoid planting near strong-growing shrubs like the lilac, or near such trees as the willow, for these very vigorous species will send their roots down under the blueberry plants and deprive them of all moisture. This is very important, so if you have to plant in such places be sure to be very careful or you will lose them.

When planting where they can be cultivated, use a spacing of 8 by 5 feet. If your soil is of the average garden upland type, place them an inch or two deeper than they grew in the nursery and if peat is available spade a bucketful into the bottom of each hole, getting it down deep where it does the most good. Peat that is mixed well with the subsoil will permit the roots to go down where they won't dry out so easily. When planting in pure peat or in very wet soil, plant them at the same depth that they were in the nursery.

Most of the information you get on blueberries will advise you to plant in peat soil or it will mention the fact that they must be planted in acid soil. So far as I can see all our soils here in the Northwest are acid enough, and personally I do not like the peat soils because they are usually very cold and crops are often lost from late spring frosts. My planting of five acres is on high upland soil, and in 11 years we have not had any frost damage. While on the subject, let me caution about *shallow* soils. Such soils are usually excessively wet when they are wet and equally dry when they have dried out. Blueberries do not like this and under these conditions they become very shallow rooted. Hence, when the dry season comes they will suffer very much. If you have to use this type of soil, drain it the best you can, and then in the dry season watch closely to see it doesn't dry out too much; you have the two extremes to watch. Blueberry roots, in deep, well-drained soil will go down deep, and this is the condition you want. In such soils you can plow and cultivate deeply without danger of tearing up the roots too much.

Blueberries must have a supply of air around the roots in the growing season. Therefore the soil should not be too wet. This is just as bad as having it too dry for under either extreme they will not prosper and you will get little or no fruit since fruit buds are formed during the dry season.

The highbush blueberry (Vaccinium corymbosum) of the Eastern states find a "happy home" in the Pacific Northwest. I believe it reaches its highest state of perfection here, the cool summers being perfect for it. However, a summer drought is not at all to its liking and provisions must be made to offset such a condition. A low atmospheric moisture condition is fine and therefore I like to see the wetting done by allowing the water to flow over the soil instead of being sprinkled on the foliage, whenever this is possible, though for the home garden I suppose it is of less importance. The plants require about the same care that rhododendrons do. If uncultivated the roots will come close to the surface, therefore it would be wise to mulch with leaves, straw or other material.

Pruning must be carefully done, or the plants will overbear and the berries will be small and seedy. The finest varieties will produce just ordinary fruit if overcropped, likewise the most ordinary plant can be made to produce nice berries if carefully pruned and expertly cared for. The berries on well-grown plants will vary from half an inch in diameter to one inch, but the largest ones are very rare. They have reached this size in four generations from the wild. I believe that within 25 years we will have them al-

most two inches in diameter since they show such a strong tendency to vary and to become progressively larger. We have a blueberry breeder of our own here in the Northwest, Mr. Joseph Eberhardt of Olympia, Washington, who has developed many fine varieties, all of them genuine east coast V. corymbosum hybrids. I consider his hybrids the finest in the country.

Healthy blueberry plants yield up to ten pints (pounds) each at maturity. We have on our farm about 6000 plants of all ages and they averaged four pints apiece last season. In 1942 we expect to harvest an average of five pints per plant with a gradual increase every year for ten years. The plants are good for a lifetime, and probably increase in size for 15 years. The berries ripen over a period of about a month on the same plant and with assorted varieties this can be extended to a total of about two months for all.

When pruning, the long vigorous shoots should be cut back to three or four fruit buds. These are the large fat buds that develop from the tips back; the leaf buds are further down and so small as to be hardly seen. If your plants do not make these strong shoots from 6 to 36 inches long, then they are not being properly grown. The small, twiggy growth should be entirely removed unless that is the only growth you have, in which case take out about three-fourths of the twigs. Remember that each fruit bud contains not one berry, but about ten, so you see how easy it is to overcrop.

In regard to fertilizer, I am no authority on this for I have used only chicken manure, but I suppose there are many commercial fertilizers that will do. Just be sure to avoid any that contains bonemeal or any form of lime.

Blueberries have great value in the diet. We can them in glass pint jars at the rate of 10,000 pints a year. Of these about 20 per cent are packed without sugar. We have a doctor who advises his diabetic patients to use them since he is a firm believer in their value.

In discussing what species or varieties to plant, there seems to be just one that is best, the one I have mentioned before, Vaccinium corymbosum. This species is the principal market blueberry of the east coast. It grows wild throughout the east and extends through Minnesota or even further, and south along the coast into northern Florida, where it takes on a different form. This Southern form is inferior in fruit to the regular type but it is a strong grower with wonderful fall coloring and a habit that is nearly evergreen. At this writing, on New Year's Day, plants of this southern type are still in leaf. In order to make them hold their leaves longer it is only necessary to prune them hard to produce vigorous growth. It is very interesting to see how well the real native blueberries of Florida like it here. I have in mind V. virgatum or Rabbit Eye blueberry. In Florida it grows 10 to 20 feet tall and I suppose in time they will get that big here. I have plants eight years old that are six feet tall now and still growing strongly. This species does not put on such fine fall color as V. corymbosum, and its fruit is most too late, often being caught by the first fall freeze. But it is a strong grower and does not have to be irrigated. The fruit is usually black, not so good in quality as that of V. corymbosum and more seedy, but for cooking purposes it has real value. A closely allied species is V. tallassee. This one is not so late, its leaves are quite glaucous and seem to be evergreen. In the fall the plant is very striking with its leaves a strange mixture of blue-green and red.

The local red huckleberry (V. parviflorum) has considerable possibilities as an ornamental and is much neglected. It varies immensely, far more than most people know, and offers quite an opportunity for selection. I have spent quite a lot of time hunting for superior specimens and have found a fine albino form that is devoid of color not only in the berries but in the leaves and buds, too. Near North Bend I have located a red one that has berries the size of a dime and whose leaves take on a fine brilliant color in the fall. In outline the fruits vary from pear shaped to slightly flattened spheres.

V. ovatum is the evergreen native of the Northwest. It so much resembles the boxwood that it is sometimes called the box blueberry. It, too, varies greatly and has been sadly neglected. What a shame we do not have select specimens of this species as parent stock since it hybridizes freely with the eastern blueberries with the same chromosome count. But these, too, have been neglected and have never been improved by selection. I have in mind V. vacillans which has 12 chromosomes.

I do not think any of the lowbush blueberries of the east coast or any of the other species of the west coast are worth planting here.

Rhododendron, Series Boothii

By A. P. Fredrickson

THROUGH exchanges undertaken with private gardens, the Plant Disposal Committee has recently acquired 12 rhododendron plants of the Series Boothii sufficiently large to commence the planned planting and these, along with other previously acquired stock of this series, have been placed in permanent location in Rhododendron Glen.

This planting is sponsored by the Lake Washington Garden Club and is in the uppermost nook of the Glen, well protected from direct sunlight and sharp winds, but still allowing for good air drainage from winter or early spring frosts.

This bend in the Glen also lends itself to the arrangement of a natural wooded ravine. With Dr. John Hanley's arrangement of decaying, moss-covered fallen trees and a ground cover of gaultheria and leaf mulch, these semi-dwarf types of rhododendron seen from below along the creek-bordered path, will provide a natural amphitheatre to view them and, we hope, a setting in which they will be happy.

Sixteen species make up Series Boothii, a rather small group, and also a rather tender one as none of them have a higher Rhododendron Association hardiness rating than "C". This readily accounts for the loss of some of the plants ordered from England some three years ago. They found the long journey and the gas disinfection chamber of the Bureau of Plant Quarantine at time of customs entry too severe.

The plants as originally chosen, hardiness, rating within the series for garden merit, and color of the corolla follow:

R. aureum	D XX	bright yellow
R. auritum	C X	pale yellow with pink on lobes
R. deleiense	C XXX	darker than R. tephropeplum
R. leucaspis	C XXX	pure white
R. megeratum	D X	bright yellow
R. tephropeplum	C XXX	magenta rose with purple tube

While R. tephropeplum is fairly well known to the followers of the genus Rhododendrons, many of the larger growers, even in England, do not include the first five in their last listings. R. auritum has been only comparatively recently placed in this series. Because of the war some of these plants can now be safely secured only by propagation and this work is already well under way in the Arboretum's greenhouse and coldframes.

The famous rhododendron botanist, Mr. J. Hutchinson of Kew Gardens, London, has said Series Boothii is a fairly homogeneous group, and the affinity of the series is mainly with Series Glaucum.

The Lake Washington Garden Club also has sponsored a planting of Series Glaucum, which is on the opposite side of the ravine and comes cascading down over rocks to join the Series Boothii from the opposite side at the pathway and creekside below.

Flowering Cherries

By W. H. WARREN

Superintendent of Parks, Victoria, B. C.

IN THE March ARBORETUM BULLETIN Mr. Warren tells of the extensive study made by the Park Department in Victoria, B. C., over the past ten years. This continues this interesting article:

Prolong Flowering Season by Selecting Different Varieties.

The time of bloom for flowering cherries is shown in relationship with other spring flowering material as observed in 1940 and 1941. Trees attained full bloom about one week after the first blossoms showed, varying according to weather conditions.

	First bloom	Approx. period of bloom
Prunus Mume	Feb. 8	30 days
Prunus cerasifera pissardi	9	26
Prunus serrulata Shiki-zakura	10	40
Osmaronia cerasiformis (Nuttallia)	18	14
Ribes sanguineum	18	43
Prunus cerasifera nigra	21	26
Prunus blireana	21	26
Prunus blireana Moseri	21	26
Forsythia suspensa Fortunei	26	32
Prunus subhirtella	26	18
Osmanthus Delavayi	Mar. 4	30
Prunus Sargenti	12	20
Prunus subhirtella Atsumori	13	30
Prunus yedoensis	14	17
Prunus subhirtella Fukubana	15	30
Prunus incisa	15	15
Magnolia Soulangeana	15	40
Spirea arguta	19	33
Prunus serrulata Choshu-hizakura	24	18
Prunus serrulata Shirotae	24	18
Prunus serrulata Tanko-shinju	26	23
Prunus Sieboldi	26	22
Prunus serrulata yedo-zakura	27	22
Prunus serrulata Mikuruma-gaesha	27	25
Malus floribunda	27	....
Prunus serrulata Amanagawa	28	20
Prunus serrulata Fuku-rokuju	30	20
Prunus serrulata Kanzan	Apr. 1	22
Prunus serrulata Horinji	3	35
Prunus avium plena	4	11
Cornus Nuttallii	5	24
Prunus serrulata Fugenzo	7	21
Prunus serrulata Daikoku	7	....
Prunus serrulata Shogetsu	11	34
Prunus serrulata Shirofugen	12	34

General Information

For detailed information on flowering cherries send to the Superintendent of Documents, Washington, D. C., for a copy of circular 313 entitled "The Oriental Flowering Cherries," price 10c. In addition to the very useful information contained therein we wish to add a few supplementary notes. Cherries like light well drained soils, but since light soils are apt to be impoverished, they will be found to respond very well to feeding. Planting should be done as early as possible in the fall. In training flowering cherries, if a strong upright side branch appears to be overtaking the main leader it is just as well to let it do so and cut out the main shoot. The tree will then make a head faster than if the stronger laterals were cut back to force the stunted leader into growth.

Comments on Varieties

Following are notes on a few of the better varieties of Prunus serrulata tested in Victoria: Amanagawa is a double pink fragrant cherry with an upright habit like a miniature Lombardy poplar, useful for accent or as a hedge. Kikushidare is a stiffly branched weeping double pink cherry. The thinly furnished pendant branches can be thickened with lateral growth by pinching the young shoots while the trees are small. Tai-haku is considered to be the finest of the single white cherries. Flowers are large and the coppery red young foliage is unusual in a white cherry. Fudan-zakura, the Continuous Cherry, also known as Shiki-zakura and P. serrulata semperflorens, is interesting because of its habit of blooming in the winter sometimes, like Jugatsu. Its white flowers may be forced easily at any time during the winter.

Choshu-hizakura is a very fine broadheaded tree with clear pink single flowers, often with one or two extra petals. It is an excellent ornamental with long pendulous flower clusters which bloom before the reddish bronze foliage appears. It deserves to be more widely grown. A specimen grows in Volunteer Park east of the Conservatory near the tennis courts, Seattle. This is the only single pink cherry of merit which does not fade to white soon after opening. The calyx is also tinged pink or wine-colored in old flowers. Like Kanzan, it grows vigorously in the young stages and needs pruning to promote lateral branching. Ingram notes that it is sometimes called Hisakura in Japan (often spelled Hizakura). Since Ichiyo is known as Hizakura and the name Hizakura has also been misapplied to Kanzan by nurserymen throughout the world, it is small wonder that confusion has existed in the proper naming of flowering cherries.

(*Continued Next Month*)

The so-called Breeder tulips that we use today were given that name several centuries ago by Dutch growers who used them to produce, or, as they apparently thought, to *breed* the flamed and feathered, variegated forms which they preferred. Anyone who has grown tulips will have been permitted to observe this phenomenon of "breaking." It consists of the rather sudden transformation of a previously solid-colored flower form to one which is variously streaked.

The cause of the rapid color change has been traced to three virus diseases. If but one virus is present the streaking will be quite reduced; with all three present in a single plant it will be very pronounced.

Obviously these virus diseases are not lethal. In fact in the minds of those gardeners who prefer the variegated flowers they are very desirable.

The viruses are usually transferred from one plant to another by plant lice or aphids. If you have a bed of solid-colored tulip varieties and want to keep them from becoming "broken" or variegated, you should observe the following rules:

1. Be sure to spray often enough to absolutely eliminate all aphids (plant lice).
2. Be sure to pull out every plant which shows the variegated color as soon as the dislocation appears.
3. Dig the bulbs at least every second year and plant them in another location where tulips have not been grown recently.

In the advertisement for **Arbor Lake Humus** on page 35 of the March Bulletin, the telephone number should be changed to GLendale 2760 from PRospect 9754.

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