Quarterly of the American Primrose Society

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July, 1952
Florence Levy, a Tribute

"Our Quarterly stands as tribute to the inspired and sustaining work of Florence Levy, its editor since its inception nine years ago." This statement is a compilation of most of the expressions of gratitude of those who were Mrs. Levy's co-workers on the paper. There were many who shared her enthusiasms and dispaers, who worried with her when promised financial support was withdrawn, who helped sustain the Quarterly morally, financially, and physically. They wish to remain anonymous because their help although given freely, was sporadic. Mrs. Levy has toiled for each volume, one after the other, with perseverance.

When Mrs. Levy started the Quarterly there was almost no available information for the amateur who desired to grow Primroses. The new gardener usually planted the common varieties and made few experiments with many of the species of Primula. It is largely due to the effort of Mrs. Levy that the variety of Primroses grown in this country has enormously increased and that accurate and reliable information has been published in the Quarterly.

In the beginning she spent hours going over the monographs of Horticultural Societies of this and foreign countries in order to make this technical information usable in the home garden. She has made the Quarterly a handbook to live with; her editorship has left the stamp of her sincerity and inspiration. The readers of the Quarterly have always had the results of her own careful research and experimentation.

None of us will ever know how much sacrifice she willingly put into this unselfish task which she pioneered and carried on so successfully the past years; but in giving up this responsibility, which she feels she can no longer assume, must be a great satisfaction for her to know that she has done an outstanding piece of unselfish service and has won a host of loyal friends throughout the world. May I join with them in the grateful appreciation of a task well done, and in the fervent hope that she will be able to continue her services as a contributor to the Quarterly and all the Primrose activities for many years to come.

MARY ZACK, President, A.P.S.
Primula Suffrutescens
and its Cultivation
WALTER C. BLASDALE

This plant, which I do not hesitate to pronounce the most beautiful of the many fine alpines found in the state of California, was first made known to botanists by Dr. Gray in a paper published in the Proceedings of the American Academy of Arts and Sciences, Vol. VII (1868), p. 371. His description of it was based, for the most part, on specimens collected by W. H. Brewer, botanist of the California State Geological Survey, on Silver mountain, at an elevation of 10,500 feet, August 5, 1863. Two other collectors, Lobb and Bridges, had collected it on other peaks at somewhat earlier dates.

Geographical Distribution

Its habitats are now known to occur on many of the peaks of the Sierra Nevada Range, near or well above the timber line, extending for 260 miles from Mt. Whitney on the south to Mount Pleasant in Placer County on the north; it also appears in the Trinity Alps of the North Coast Ranges in two stations and on a few peaks of western Nevada. Because of its sporadic distribution and its occurrence at high altitudes only, it is little known except to enthusiastic mountaineers. Good patches of it are readily accessible on Clouds Rest, near the northern edge of the Yosemite Valley, and on Ellis Peak near the western shore of Lake Tahoe. It is always found near bed rock in granite, volcanic, or metamorphic formations, either on gravel-filled pockets or talus slopes. Such situations are normally covered with snow from November until June. Melting of the snow gradually exposes the plants to the intense light and heat of the rarefied atmosphere during daylight and subjects them to a low temperature, even to the freezing point, at night. These conditions are not conducive to the growth of most seed-bearing plants, hence the number of associated species is small.

At left, foliage and root system of part of a plant of Primula suffrutescens dug up from one of its native habitats; at right, a plant of the same species growing in a garden in the city of Victoria, British Columbia.

Botanical Description

As shown in the three accompanying photographs, the leaves exhibit unusual features for a species of Primula. Their blades might be called spoon-shaped for their ends are rounded and somewhat sunken at the center below their edges; they taper fairly uniformly to the point of attachment with the rhizome which supports them and this gives a narrowly wedge-shaped outline to the entire leaf. The conspicuously dentate margins of the blades tend to bend inwards (innate vernation) rather than outwards (revolute vernation) as in most of the species of Primula. Finally, their upper and lower surfaces are similar in smoothness, in cell structure, and in the number of stomata per unit of surface area. These characters, in addition to their thickness and lack of visible nerves, indicate some degree of succulence such as is found in several species of the Auricula Section.

The leaves remain green during the winter season but shortly after the new crop has developed the older ones dry up, become blackened, and finally fall from the rhizomes leaving the stem-like rhizomes bare though marked by scars left by the fallen leaves, similar to those of the stalks of the auricula. The rhizomes are thick and fleshy, not shrubby as the specific name suffrutescens would imply. There are decided resemblances between the trailing habit of growth and the foliage of this species and those of P. Allioni* found in the Maritime Alps of Italy.

The erect shoots rise from the ends of the rhizome branches to the height of four or five inches, each bearing from three to seven short pedicels and attached flowers. The corollas have the characteristic salver-form of the genus; the ends of the petals are rounded, frequently notched at the middle, rose-pink or red, and usually with a narrow band of yellow surrounding the corolla tube. The flowers open in July and August; the resulting capsules develop slowly and is late September before they split open. The seeds are small and light, somewhat flattened, and some of the lines along which the irregularly shaped bounding planes join are extended into narrow wings. These suggest those of the auricula. Although the yield of seed per plant must be large I have never found either seedlings or young plants in any of the patches which I have studied. Obviously it is a species whose members continue to expand almost indefinitely by a purely vegetative process developing new roots every season from points some distance back from the ends of the rhizomes and developing new plants from seed only when conditions are especially favorable. Unlike many of the mat-forming alpines it does not produce a single stout taproot.

On several occasions I have reveled in the beauty of boulder-strewn slopes and gravel-filled pockets covering several acres with almost continuous patches of deep green foliage and innumerable luminous clusters of the charming flowers of this species. Smaller clumps or individual plants wedged into narrow crevices in the bed rock are almost equally appealing.

Natural Relationships

I have already cited certain resemblances between Primula suffrutescens and some of the species of the Auricula Section. Of these similarities taxonomists attach special significance to the involute rather than to the revolute vernation; the involute vernation distinguishes four of the thirty sections of the genus recognized by Smith and Fletcher in their monographs of the genus. These bear the names Auricula, Cuneifolia, Parryi, and Floribunda. The remarkable form the leaves of Primula suffrutescens shows decided resemblances to species of the Cuneifolia Section, in which section it is included. This group was based on a species first discovered in eastern Siberia and described by Ledebour, who was so impressed with the resemblance between the form of its leaves and the wedge-shaped character used in writing the Assyrian-Babylonian language that he called the species P. cuneifolia. Later when other species, bearing leaves of

*The Editor notes that there is a picture of P. Allioni on p. 89 of Mr. Blasdale's book, "The Cultivated Species of Primula" University of California Press, §3.95.)
similar form, were discovered the name Cuneifolia was applied to a newly established Section. It now consists of the three subspecies into which P. cuneifolia had formerly been divided, a Japanese species called P. nipponica and P. suffrutescens. Since the P. cuneifolia subspecies saxafragifolia has been found in Siberia, Japan, the Kurile and Aleutian Islands, and Alaska it seems probable that the California species is connected with species of the Cuneifolia Section geographically as well as taxonomically. I was able to grow (unfortunately for a short time only) specimens of the sub-species saxafragifolia and have seen photographs of the other species of the section. None of them approaches the California species in size and floriferousness. Mention should be made of another group of the involute species namely the Section Parryi, which consists of five species confined to the Rocky Mountains from New Mexico to Idaho and the Wallowa Mountains of northeastern Oregon. Interesting data concerning these has appeared in this Quarterly in volumes II, p. 17 and p. 57; V, p. 8; VI, p. 1; VII, p. 57; and VIII, p. 39.

**Primula suffrutescens in Cultivation**

It would be difficult to reproduce artificially the exact conditions to which this species is accustomed in nature; it is not probable that even ardent devotees to this genus would undertake the task. We can only speculate on how far we can deviate from the conditions to which it is accustomed and make a success of growing it at or near sea level. Some encouragement can be found in the fact that species of several other genera from similar habitats have been grown under normal garden conditions or in unheated greenhouses in England. I recall two such species which grow in the Sierra Nevada Range in situations almost identical with those in which the Sierra Primrose grows to perfection. One is Epipodium obcordatum, long known to be perfectly at home in English gardens and listed in current seed catalogues; the other is Cassiope mertensiana, which belongs to a genus other members of which have become standard plants for the alpine house.

A photograph showing excellent flowering plants of the Sierra primrose grown at the Edinburgh Botanic Garden is included in the Report of the Third Primula Conference, published in the Journal of the Royal Horticultural Society, Vol. 59, Fig. 86. It is reported to have disappeared from cultivation there shortly thereafter and was considered a very difficult plant to grow. I have found several reports written in the Gardeners' Chronicle and The Garden by certain correspondents who concur in this verdict. A more hopeful account of experiences with it in Victoria, British Columbia appears in a book entitled North American Rock Plants (1937) by W. H. N. Preece. He writes: "This species may be grown in full or partial shade or in a cold exposure; with me it thrives and spreads quite rapidly in the rather dense shade beneath Douglas Firs. Quick drainage is essential as anything approaching stagnant conditions in winter are more than likely to prove fatal. The best results have been attained in light, sandy soil with the addition of leaf mold and peat and a top dressing of sand and leaf mold in autumn." The success here reported is confirmed by a photograph sent me by a correspondent in Victoria which I have reproduced here.

My experience together with the data here assembled seems to indicate that Primula suffrutescens needs some shade rather than intense light and heat during its growing season. It is possible that a long period of dormancy has become a necessary feature of its yearly life cycle. It might be possible, even without artificial refrigeration, to slow down growth sufficiently by withholding water during the cooler part of the year to satisfy the dormancy requirement. I look forward to the opportunity of making an experiment along this line. I know of no more worth while objective to which lovers of alpine plants might devote themselves.

Walter C. Blasdale, Professor of Chemistry, Emeritus, University of California, has made an exhaustive study of the genus Primula for more than twenty years, growing many varieties in his garden in Berkeley.

Photograph of Primula suffrutescens as growing on Ellis Peak, California at an elevation of 8754 feet.

**Our Heritage and Our Trust**

Mrs. John L. Karnopp, Portland, Oregon

The speculations of Mr. D. Bamford, in the last year-book of the National Auricula and Primula Society of England regarding Auricula growing in America, have started a train of thought along the same line on this side of the Atlantic. He wonders what the American growers are doing about rigid rules as to the properties of this flower, and whether the traditions of the old florists are being kept. He asks if we will be tempted to produce the massive flower, the brilliant splash of color at the expense of perfect symmetry and ordered beauty. He also gives brief and timely suggestions for those who would "worship at the shrine of beauty." Both this writer and Sir Rowland Biffen in his splendid book, "The Auricula," express the hope that the Auricula may somehow take on a new lease of life in America; that perhaps new forms long sought in the old world may appear, and that old forms long since lost may come again through our breeding efforts.

We hasten first to reassure Mr. Bamford, and all others beyond the seven seas, that we will carry on the old traditions. This must be so for many reasons. There may be changes, as there always have been, of names and groupings, but these are of minor importance. For instance we already note a tendency to speak of "garden" Auriculas...
rather than "border" Auriculas, perhaps because modern home landscaping seems to favor groupings rather than borders.

One great reason why we shall carry on the old traditions is because of our background and heritage. Many in our Northwest have descended from colonial mothers who spoke the Primula and Auricula language, and had their tidy little borders which somehow impressed the children who migrated later to the West or Middle West.

Our history tells how our great leaders and diplomatists of early days developed beautiful gardens, securing much of their plant material and seed from overseas. Those of us who have had the pleasure of reading "Thomas Jefferson's Garden Book," quite recently compiled by the University of Virginia, are surprised at the number of Primrose and Auricula plants that the great statesman included in his many garden orders to London. One most interesting letter dated 1807 was received by him from Mr. Bernard McMahon of Philadelphia. This garden friend of Jefferson writes, "Of Auriculas we have here none worth a cent but I expect some good ones from London this spring. If they come safe, you shall have a division next year." Does not this sound almost modern? How many times have we found our Auriculas "not worth a cent," judged of course by rules of the old florists?

While heritage and history bind us closely to overseas traditions, there are other and more recent influences that should be mentioned here. In the migrations to the Northwest, just after the turn of the century, there were many from the level prairies or from the timbered states. The move from prairies and timber of the East to the valleys and timber of the West was not a great break in the lives of the heads of the families, but the change from geraniums, phlox, zinnias, lilacs and irises, on the one hand, to rhododendrons, azaleas, camellias and roses on the other, was terrific for the home garden makers. It was then that the many Swiss gardeners who had recently immigrated to this country and beautified the swollen cities of the West, stepped in and helped. They were old world gardeners who knew their alpines and rock gardens and through them many a new garden bloomed with alpines from foreign seed. Primroses and Auriculas became popular for the small garden. Many found at last that they could have the things for their gardens that their grandmothers talked about: "London Pride," "Lady's Delight," and Primroses.

Then came the foreign seed catalogs such as Thompson and Morgan's from England with no less than four pages of species Primula, and the Correvon catalog from Switzerland with almost as many. The Swiss friends were most helpful, giving freely of their abundant knowledge and they are among those to be thanked for holding to high standards and traditions, for they produced only the best.

Then too, we have looked to the North for help and guidance as well as for fine plants and seeds. The cordial relations between Canada and our own country allow us to visit our British neighbors and friends often, and we exchange ideas and plants freely. Traditional points on handling and judging are also a part of this fine association. Many of us belong to the same Primrose and Auricula Societies, we read the same books and magazines and all are in close touch with the old world garden ideas. How could we possibly slip with such staunch friends to uphold us?

Our English Primrose and Auricula friends overseas have been most helpful. Personal friendships have sprung up which mean much more than just good seed and ideas. We have England to thank not only for traditions, publications, ideas and horticultural information but for fine friends and close associations. The airplane is bringing us closer together every day.

We have our own growers here in the Northwest as well as friends and neighbors interested in the Primula. They are determined to produce only the best, they are guided by the best that has come to us and are grateful to all for that heritage. We hope to produce that new Auricula that Sir Rowland Biffin was looking for. If it so be, we shall be very happy to add our bit to a wonderful history that no other flower can equal.

A Bit of Primula Potpourri

J. G. Bacher

Almost anyone who has the opportunity to browse about the suburbs of our city during the earliest spring months cannot fail to be impressed by the sight of Primulas, be it in February, March, April, May, or even June, in some sections. Gardens here and there show this unexcelled hardy plant in full flower long before other perennials wake up to the role of floral display. Of course each season has its preferred Primulas for some come shortly after the ground is thawed out.

One of the earliest to flower is Primula rosea. It's floral stem appears bare in the ground when the first unique bright pink flowers open on it, and day after day more blossoms appear. The stem itself goes on rising bearing the flowers more and more into the air so that they may be seen from much further away. Naturally suitable soil is one of the factors when you see stems twelve to fifteen inches tall bearing their flowers like a flame on a candle. Its radiance in bright pink seldom fails to win admirers in almost every age group. "Why do we not see them more often," is one of the questions frequently asked by admirers. Like all garden flowers this Primula has wants of its own and unless they are taken into consideration Primula rosea will fail to feel at home. These wants are based on its natural habitat where it is found in rather wet locations in rich humus laden soil. It grows in the deep valleys of Afghanistan and Kashmir at altitudes of ten to twelve thousand feet, and so it is familiar with the snow and ice experiences of the Himalaya region. Most of our gardens should give this member of the Primula family a suitable spot shaded from the hot summer sun. The earliest spring days are reminders to watch this glorious species as it unfolds its bright colored flowers. Quite a number of growers nowadays offer it to the gardening public, thanks to the American Primrose Society which stimulates its members to widen their horizon in the world of Primulas.

While gardens everywhere seem to take great delight in the showing made by the Polyanthus it is surprisingly rare to see these flowers used to their best effects. Also it may be said that the people of our city have not yet realized the potentialities of the "common Primrose" as it is called by casual gardeners. I believe it is the duty of our Society to encourage diligence and art in the planting of Primulas, for it is common sense to give good plantings the benefit of favorable publicity. The difference in good plantings, rather than the haphazard ones we see so often in gardens, is remarkable. There are so many ways of arranging a Primula planting that it is a bit difficult to say, "do it this way or that way" for best satisfaction. Nevertheless why not pay a bit of attention to color arrangement. We all know that there are certain color schemes that are carried out with ease when you know your Primula plants before setting them out. Let us single out a few of them as suggestive for those who wish improvement in the garden. Take for instance the dark colors; group them together in the foreground, then add to your grouping lighter tinted sorts as you recede from the viewpoint most commonly taken when visiting the garden.

In front of your Primulas you may plant a border of forgetmenots. The blue of forgetmenots is most charming with all of the Primula colors and as they are so easily raised it is surprising to find so few used. As the Primrose is especially adapted to informal plantings it is seldom used in formal borders or for formal effects, yet this past spring I happened to see an entrance walk nearly bordered with Primulas on both sides producing a gorgeous effect although mixed colors were used instead of solid colors.

One of the delightful companion plants for early Primulas is the so-called purple rockcress or Aubrieta for it has the same flowering period as the Primula and comes in a variety of colors that blend well with Primulas. These two, however, are true perennials, not like the forgetmenot, so take more time to raise, but will serve for many years to
come. The low creeping foliage is covered with flowers of almost carpetlike effect making extremely pleasing garden pictures for people who have a bit of knack and imagination in grouping garden arrangements.

We have other rather desirable perennials which will prove delightful companions to Primulas, such as the Anchusa myosotidiflora, a lovely plant with forgetmenot-blue flowers which seldom exceeds twelve inches in height and flowers during April into May. This anchusa likes best to be in a shady spot. One of the easiest low growing true perennials is the Pulmonaria angustifolia. I still have recollections of seeing it grow wild under hedge rows on the outskirts of the city of Geneva, Switzerland, where in the earliest spring their true gentian blue flowers, alongside the wild Primroses, made a deep impression on me. I was a student of the Swiss School of Horticulture at that time, which was over fifty years ago. This Pulmonaria thrives beautifully in our gardens here whether in the shade or full sun, apparently indifferent to soil conditions, yet how seldom does one see them on our plant lists or in our gardens. Is it one of the good things we pass by in our hurried way of finding the largest sized flowers in the Primula?

I do not want to convey the impression that great size is detrimental to true art, but gardeners often create works of art in limited spots to delight the grateful beholder. Mother Nature has been most kind to us by providing generously of plants in the Primrose family suited to the smallest garden spot. I well recall seeing the miniature Primula farinosa in some of the small ravines below snowfields, sheets of tiny pink flowers with here and there tiny tufts of those miniature Saxifrage of the Burtoniana type. Yes, time has elapsed since then, but there is an inner spring of happiness connected with the memory of these delightful miniature Primula farinosa, the little Gentiana verica with its startling blue starlike flowers carpeting the ground, or the yellow Auricula growing out of a rocky crevice. It is lucky for me that I have acquired that treasure of true gardeners everywhere, a mind receptive to all the glories of nature.

The Auricula Month By Month

C. G. Haysom

There are but few secrets worth knowing in the cultivation of the Auricula. They are four in number: (1) A sweet wholesome compost must be used. (2) The utmost cleanliness must be maintained. (3) Plenty of fresh air and no codling. (4) Careful attention should be paid to watering. The plants must never get dust-dry, nor ever sodden; both are great evils. The happy medium is what is required.

July: This month no active growth will be perceptible, still the plants will be working underground and must be encouraged. As in June, there should be no excess in watering only just enough to keep the roots on the move.

August: The second season of growth will now begin, and should be encouraged as much as possible to secure fine heads of bloom in the Spring, and for this, good Autumn growth is essential and plants kept free from green-fly.

September: In this month the plants will need all the air possible, and exposure on all favourable occasions. This will help to secure a good sturdy, healthy growth, and to enable the plants to pass safely through the Winter. Too much attention cannot possibly be given to watering and cleanliness. It is attention to these apparently trifling matters that enables some growers to outdistance others.

* Mr. C. G. Haysom is one of the most successful growers of Auricula in the world. His home is in Totton, Southampton, England... "The Auricula Month by Month" will be continued through Volume 10.

Primula Nutans

Mrs Orval Agee

P. nutans was found in Yunnan province of southwest China. Sir William Wright Smith and Harold Roy Fletcher are the authorities on the genus, so I will quote part of their writing: *This very fine species was discovered by Abbe Delavay in 1884 at Moa-kou-chong, a plateau between Tangkong and Hoking, at an elevation of 3500m, growing in open pine forests and rocky pasture.* Primula nutans was later introduced by George Forrest, as the seed he sent to England in 1914 produced plants, which bloomed in 1916. *"Nutans" means nodding or drooping, the name certainly fits the plant with its beautiful drooping bells of lavender blue. These are faintly scented, with a fragrance similar to heliotrope. The flower clusters are held erect by a sturdy white powdered (farina) stem. The buds and blooms are also covered with a light coating of farina, inside and out. Each floret is about three-fourths of an inch across, and like other Primula, they may be either thrum or pin eye. The plant usually grows from nine to twelve inches high. The leaves are a medium green, soft, and slightly hairy, and free of farina. The plant takes little room and may be planted only five or six inches apart.*

Parts of Yunnan province are under the influence of the monsoon. These come in from the bay of Bengal, but the force is lessened by the high mountains of Burma. Perhaps this accounts for P. nutans need of moisture and good drainage.

Primula nutans seems to be very easily lost during the seedling stage, and a hot dry wind seems fatal to these tiny plants. My plants kept in a flat covered with glass, to hold the moisture, survived while the exposed seedlings expired in a short time. My growing medium composed of rotten wood, sand, proved satisfactory. The plants were set out in raised beds during July and August and then were sprinkled whenever needed and kept rather moist. In late fall the bed was covered with an inch of coarse sand, which protected the crowns from rotting. Nutans is dormant during the winter, not showing a sign of the plant until spring. Mine began to show growth in March, then bloomed from late May through June. This is listed as a monopodil plant, but nevertheless there have been reports of it blooming again.


** Mrs. Agee was asked to do this article on P. nutans, not only because she is Chairman of the Educational Committee for the Society, but because we found an incomparable beauty in her garden—raised bed of dozens of P. nutans blooming! Connor states that P. nutans is one of the most beautiful Primulas ever introduced to cultivation." We all agree with his statement after seeing these lovely flowers. If anyone would like to experiment with this exacting little plant, the seed is listed with Howard W. Lynn, 413 Golden Gate, Fircrest, Tacoma, Wash.; Jack Drake, Inverness-shire, Scotland, and Edrome Nurseries, Coldingham Berwickshire, Scotland.

The line drawings for the frame of the new cover are by Ivy Agee. The lettering is done by Professor Lloyd Reynolds, teacher of Art and Literature, through the facilities of the Reed College Graphic Arts Workshop. The engraving was done by the Maddox Engraving Co., 10011 Witchita Ave., Portland, Oregon.
Spraying and Baiting Effectively

Howard J. Grady, Washington, D.C.*

Baiting with good bait, containing a poison, is still one of the most effective means of combating the Strawberry Root Weevil. The baiting must be started early in the season and continued as long as the adult weevils are emerging. In digging around Primroses, strawberry plants, etc., it is easy to detect the larvae of the Root Weevil, and this is the time to start the first baiting operation. A poison bait containing metaldehyde and calcium arsenate such as Bug-get-a Pellets will also take care of the slugs, snails and other night feeding insects. A slug bait containing only metaldehyde is not sufficient control over the Root Weevil ADULTS. (The poisons which are effective against the adult are baits containing 5% of active insecticide such as sodium fluosilicate or calcium arsenate.**)

Many of the strawberry fields in the Pacific Northwest have been cleared from timberlands which have been the natural habitat of several species of Root Weevil. When cultivated strawberries became such an important crop in the Northwest, they provided more food for these Root Weevils and they increased in number as a result of having a more ample food supply and very little control.

As home building increased, it was necessary for the home owner to go into the areas which at one time produced strawberries. I personally do not feel that Primroses have had very much to do with the increased Root Weevil population. It is a result of the home owner moving into areas that have had a Root Weevil population previously established. Many informed gardeners have eradicated these pests from their grounds.

Spider mites are also serious pests on Primroses and weaken plants considerably if they are allowed to run rampant. Spraying with Vapotone is the most effective control as the Vapotone will "knock out" most infestations of Red Spider Mite and Aphid. If you have a heavy infestation of Red Spider Mite two sprays with Vapotone are recommended. The first spray kills the ADULT, a second spraying is required to kill the young population that hatch from eggs not affected by the first spraying. By adding Isotox to the Vapotone solution you can delay the second spraying for two to three weeks. Isotox has a long residual action and keeps spider mites in check while Vapotone makes a flash kill of the adults.

* Mr. H. J. Grady was a contributor to one of the first editions of the Quarterly. He is still with the California Spray-Chemical Corporation and is now Vice President as well as Eastern Manager of the Marketing division.


Owing to the complications which have arisen from the change of editorship, we have been unable to get in touch with all our advertisers before press time. Our omission will be corrected in future issues. Our apologies to the following:

Vetterle & Reinelt (Pacific Strain of Polyanthus), Capitola, California.
Getzum Products (Carco X), Box 37-P, Sumner, Washington.
Bayview Gardens (Double Polyanthus), Rt. 1, Box 185, Olympia, Washington.

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"Nutrient Impregnated Spagnum Moss"

Our gardening procedure has been changed by a new organic spagnum moss product called "Blue Whale." The results of its use are pleasing to the eye and the reward is a great saving of time and water. We took the product on the word of a trusted salesman, but we did not expect that our healthy and carefully tended plants would put on new sheen of leaf as well as hardy new growth. The seedlings planted out in it in unfortunate weather are still as fresh as new lettuce. We divided our old Cowichans after blooming and filled the pockets with this impregnated mixture; there was no root shock and they have a beautiful texture.

We formerly spent hours shredding moss for seed flats. Now we use this "prefabricated" medium. The last seedlings were planted were some precious pink Polyanthus. There was over 90% germination in a very few days, and they are now vigorously demanding transplanting.

The folder accompanying this product stated that it 'supplies the soluble organic nutrients (made in powder form from marine life and impregnated into the Spagnum Moss) which are held in the moss so that its full value is fed to the growing plant as required.' Leafler number 324 from the United States Department of Agriculture has the following statement for its forward: 'Shredded spagnum moss is an ideal medium for seed germination. This has been demonstrated by long experience with several thousand species of plants at the United States Plant Introduction Garden at Glenn Dale, Md.'

The use of spagnum obviates the need for applying chemical protectants to the seeds or the seedling medium to avoid attacks of damping-off; it reduces the need for constant watchfulness and for expert judgment; and it prevents harm from overwatering. If mineral nutrient solutions are applied to it many plants make excellent growth beyond the seedling stage.

The advantages of spagnum deserve the attention of nurserymen, florists, vegetable growers, amateur gardeners, and other horticulturists and also of plant pathologists.

The method of producing Whale Soluble (Fish Emulsion) was worked out in Vancouver, British Columbia, by Norman Armstrong of the Norman Armstrong Laboratories. After a good deal of experimental work it was found that much better plant growth could be obtained from the whole product when it was used in combination with horticultural spagnum moss. Apart from the bacterial activity created in the moss and the growth factors involved, it was found that where the solution was applied it was possible to wash over fifty percent of the Soluble out of the peat moss by heavy watering or weathering conditions, but when it was applied in a fine powder form it would not separate from the spagnum moss. The peat contains a nutrient which has a long residual effect thus giving the growing plant a healthy and sustained growth by wholly organic feeding.

One of the large Primrose growers is conducting a controlled test on this new product. He has planted seeds and seedlings in flats containing different percentages of impregnated spagnum, loam, and sand. The results of this test will be given in an article in the October issue.

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Eleventh Annual Primrose Show
Portland, Oregon
APRIL 19-20, 1952

The curtain is drawn on the 1952 Primrose show. The growing interest in Primrose culture was manifest by the large number of visitors who attended the showing.

The General Show Chairman, Mrs. T. W. Blackeney, chose an appropriate as well as a beautiful theme for staging the show; that of an English Formal Garden where visitors were welcomed as they entered the Journal Building. The beautiful geometrical entrance display, was in charge of Mrs. Howard Venn and Mrs. Lou Levy, and the contribution of the following commercial growers: Mrs. Ben Torpin (Woodland Acres), Mr. and Mrs. Howard Venn (Silvan Dell Gardens), Mrs. Lou Levy (Barnhaven), Carl Starker (Carl Starker Gardens), Primrose Acres, Miss Linda Eickman, Mr. and Mrs. Moore (Springbank Gardens).

Keen interest was shown in the Amateur Gardner's entries which excited comments and questions. "Is it possible to grow plants like these in my garden?" "Is it necessary to have a greenhouse?" These questions were answered by Mrs. Ben Smith, Mrs. Orval Agee or Mrs. John Karnopp who comprise the Educational Committee of the Society. Their exhibit contained examples of different species from the seed to the flowering stage. Mrs. Orval Agee loaned her collection of Primula water colors which were careful reproductions of many species which were out of bloom at show time. This beautiful and successful exhibit drew many new members to the Society. Mrs. Marguerite Clarke, Mrs. Oscar Dunder, and Mr. Ralph Hanna commented on the colored slides which were shown in the adjoining auditorium. Of great educational importance as well as an added attraction to the show were the complimentary exhibits of Mrs. A. C. U. Berry and Mr. Henry Hessinger.

Mrs. P. B. Christensen, Bellevue, Washington, Mr. E. Perrine, Kirkland, Washington, Mr. Matthew C. E. Riddle, Mrs. Marguerite Clarke, and Mrs. Florence Levy, as judges, announced the following awards:

MRS. ORVAL AGEE: 1) American Primrose Society silver platter for most first award points in all divisions. (2) Lois Land trophy for best garden auricula. (3) Dr. Matthew Riddle's trophy for best species with her P. chionantha. MRS. ROBERT H. JOHNSON: (1) First National Bank trophy for runner-up points. (2) The Henry Hessinger Silver Shell for her blue Dentelicula. MRS. E. J. FRANCE JR.: (1) Allen Davies trophy for best named Julians. (2) Henry Hessinger award for her yellow oxslip. (3) Roy and Moulin trophy for the best yellow Polyanthus. (It was both fringed and scentless). "The Miss Arte Meehan memorial award (birth bath), for the most points for Polyanthus. MRS. BEN SMITH: (1) Marguerite Clarke Italian glass trophy for the best yellow Polyanthus seedling. (2) Mrs. Clarke's flower compote trophy for best White Polyanthus. MRS. R. W. MULHAUSEN: Robert Ewell award for best auricula. (This auricula was a beautiful double yellow and was the one double out of a half packet of seed from the Bayview Gardens.) MRS. O. R. SLACK: Mrs. C. Higgins award for the best Auricula. MRS. SOPHIA MAASSON: Dr. Robert Wise award for best red Polyanthus. MRS. OSCAR DUNDER: Robert Ewell trophy for her best Polyanthus. MRS. GEORGE A. GRANTHAM: Mrs. Edward Paulsen award for best Polyanthus-auricula. MRS. JOHN KARNOPP: Barnhaven award for best auricula seedling. DENNA SNUFFER: President's trophy for best commercial seedling. NANCY FRANCE: Robert Ewell trophy for her best Polyanthus. "The Judge's Trophy for the best entry was awarded to Dennis Johnson's display of 'The American Primrose Society for the most Junior Entry points. The Garden Clubs of the surrounding neighborhoods contributed outstanding arrangements. The GLADSTONE GARDEN CLUB again won the 'sweepstakes' trophy, the Portland Seed Store silver tray. Ribbons were awarded in all divisions.

The judges were: Mrs. Reid Stone, Mrs. J. E. Snipes and Mrs. Peter Honstein.

Any help or suggestion to further the publicity for the American Primrose Society or for Primroses in general will be welcomed by the Publicity Chairman, Mrs. John P. Hannon, 17300 S.E. Oakfield Road, Portland 22, Oregon.
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