CONTENTS

President’s Message, Robert W. Ewell
Extracts from the Minutes of the Spring Meetings, Donald O’Connell, Rec. Sec’y.
Spring Show, 1944
The Exhibit of Mrs. A. C. U. Berry
Some Moisture-Loving Primulas from Seed, Mrs. John L. Karnopp
Mulches and Primulas, Paul Van Allen
The True Primrose in Scotland, Donald James
Sketchbook, P. amoena
Primrose Exhibit in New York
Summer Water, Broadleaved Trees and Primulas

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PRESIDENT'S MESSAGE

To members and friends of the American Primrose Society and to primrose lovers everywhere, greetings:

As we move forward into a new year in the history of the Society, let us take a fleeting glimpse into the one just passed. To your President, it seems to be a milestone marking as it does the accomplishment of one of the goals set at the inception of the Society—the publication of the Quarterly, a magazine given up to the study of primulas, a study that is a gem of many facets, and to the friendly exchange of experiences and ideas of primrose lovers throughout the land.

The past year marks also a sharp rise in primrose interest, both west and east, as evidenced by the in-pouring of new members, the imminent affiliation of enthusiastic groups and the gratifying response of individuals in allowing their zeal for primroses to crowd out, for a short time, the rush of the day and build a monument to lasting beauty in one of the finest exhibitions witnessed in this part of the country.

And now as to the future. Having watched the development of primulas in this country with an interest born of an early love for the flower, it has become increasingly evident that the United States is destined to supplement the countries of Europe in its culture, sharing in the forward strides of knowledge and improvement. With this in mind, the faculty of Oregon State College has been asked to inaugurate a winter extension course on the subject of hybridizing, and other study groups are forming for the purpose of delving more deeply into the literature, history and romance of primroses and primula species.

And so as we face another active year, may I bespeak the earnest cooperation of all of our members scattered over the United States and Canada, and the future cooperation of those who, in foreign lands, must temporarily forsake the more gentle pursuits.

Robert W. Ewell.

Society's Success Story

The Society has been faced with the rather pleasant embarrassment of running short of literature, the supply of Nos. 2 and 3 of Volume 1 of the Quarterly having been exhausted for several months. At the time these issues were brought out, the supply seemed more than adequate, but the Society is coping with a much greater demand than was anticipated, a demand which seems to continue unabated. In order to fulfill the pledge to provide primrose information to all who desire it, the Society...
The Society expressed its appreciation to Mrs. John M. Young, Show Chairman, and the various committees for the diligent work that made the Annual Show such an outstanding success.

The new President, Mr. R. W. Ewell, welcomed the large assemblage of members, their friends and visitors to the May meeting and expressed his eagerness to forward the good work already begun. Mrs. Lou Roberts reported her recent trip to Victoria, B. C. and mentioned especially the primrose interest there, keen to begin with, which is gaining momentum rapidly. Mrs. R. P. McHenry showed a pot of seedlings which she will bring to future meetings so that members may watch their development from month to month. Mrs. John L. Karnopp showed some very fine candelabras and Mrs. John M. Young brought an outstandingly beautiful white P. Sieboldii to contrast with her candelabras.

Highlight of the evening was a demonstration illustrating the adaptability of primroses in arrangements by Mr. Carl Starker, one of the west's outstanding teachers of this art in all its phases. From a table banked with candelabras, polyanthus, auriculas, Sieboldii and material other than primula, Mr. Starker selected blooms that, combined with their beauty and his skill, seemed to arrange themselves into eight unforgettable pictures. There was the round, yellow bowl with autumn-colored polyanthus; the red and pink candelabras combined with turquoise berry in an aqua, rectangular bowl arranged to be viewed from all sides; yellow polyanthus in an oval chartreuse bowl set off by pale, pastel iris with a silvery sheen; the bride's bouquet in a pedestal white bowl—white aquilegia, white Sieboldii primulas and double white narcissus; the pink pulverulenta primulas, pink allium and a dainty white shrub in an opalescent blue and pink, rectangular bowl; a bowl that might be called green held pink pulverulenta, red beech leaves and a few irises; there were golden iris, yellow polyanthus and bronze auriculas in a round bowl, grayish-pink outside lined with gold; and finally the pink and blue, square bowl arrangement of pink pulverulenta, pink Sieboldii, white Sieboldii with graceful sprays of London Pride and anemone seed pods. Needless to say, the evening will long be remembered.

DONALD O'CONNELL, Rec. Sec'y

Time and Place of Meeting

The regular meetings of the Society are held on the third Tuesday of every month at 8:00 P. M. in the Men's Lounge, third floor of the Public Service Building, S. W. Sixth and Salmon Streets, Portland, Oregon. With the exception of the July and August meetings, which are scheduled for the out-of-doors, the Society will continue to meet here until further notice.

Treasurer's Address

Mrs. O. J. Zach, Treasurer, receives dues at the following address: Route 2, Box 155, Portland 10, Oregon.
The Third Annual Show of the American Primrose Society was held April 12-13 in Portland, Oregon at the Art Museum. Never before has there been a more gratifying display of primroses or interest in primroses on the part of exhibitors and the general public, more than four thousand of whom visited the show.

The First Primrose Show held in 1942 was mainly dependent upon the entries of commercial growers for its effectiveness; the same was true to some degree of the 1943 Show. This year's Show, however, was decidedly one of the individual exhibitor, well over three hundred entries being registered, some from a distance of 250 miles. The day seems not too far distant when eastern enthusiasts will be shipping their plants to the yearly exhibition.

Mrs. A. C. U. Berry's complimentary exhibit was arranged as the focal point of the Show and it was to this that all visitors were first drawn. A detailed account of Mrs. Berry's display is given on page 6.

The quality of the plants used in the professional growers' exhibit was extremely high. Displays were arranged to flank Mrs. Berry's primulas along the back and side walls. Even in the modernistic atmosphere of the Museum, the growers who aimed at a woodland air achieved it by backing with rocks, small shrubs or ferns. A diversity of ideas presented the primroses in widely different settings much to everyone's delight and information. There was the exquisite little rockery planted entirely to hybrids of P. juliae, as complete a collection of these colorful miniatures as one might wish for; the informal border of pastel polyanthus and pansies with shrubbery background; a formal copper, bronze, yellow and white display of polyanthus banked by ferns which interlaced into a retreat for a statue of Kwan Yin, the Chinese goddess of mercy. A wheelbarrow filled with giant polyanthus always drew a crowd as did the many informal gardens, both woodland and suburban, using auriculas, acaulis and the early blooming Asian primulas. The whole was a tribute to the ingenuity, skill and cooperative spirit of the professional primrose hobbyists.

The many garden clubs of Portland and vicinity responded with arrangements in which primulas predominated, and had their share of glory and appreciation. First award was won by the Wsides Garden Club which arrangement consisted of varying shades of yellow polyanthus in conjunction with horse-tail rush, green dogwood "flowers" and gray branches. The Dahlia Society won second place and the Peninsula Garden Club, Honorable Mention. Hoodview Garden Club took first in horticulture.

The Educational Table, successful innovation of the 1943 Show, was a constant center of interest. Among the plants shown was a fine red show auricula; Primulas Wulfeniana, glaucescens, and the rare and dainty pubescens alba, all from the European Alps; Primula amoena from the Caucasus and the flowering pink P. rosea grandiflora of India, apparently new to most of the visitors who were attracted to its flame. A large pot of this primula was a beacon beside the Society's Scrap Book, ably kept by Miss Alena Jacobson, which contains articles and comments on primroses clipped from local and national newspapers and magazines, together with press notices of the Society's progress.

An alcove was reserved especially for the display of Mr. P. A. Warren who brought his primroses successfully through the uncertainties of war-time transportation from his home near Seattle. Fine polyanthus and several original Juliae hybrids were a credit to the Show and Mr. Warren's ability.

Others who put in complimentary exhibits included Mrs. Philip Hart, Mr. Paul Wessinger, Miss Leah Zednick, Mr. Carl Starker, Mrs. Lou Roberts, Mrs. R. P. McHenry, Lew and Florence Levy. The Men's Garden Club featured a complimentary garden scene, panel figures attracting much attention as the primroses.

Every individual display deserves mention but the great number entered is, unfortunately, prohibitive. There were doubles new and old, semi-doubles, polyanthus and acaulis in every color, each so perfect as to tax the concentration of the judges—cowslips, oxlips and auriculas.

And, whereas the 1943 Show was primarily an auricula, candelabra and Sieboldii exhibition being held later in the season, only a few of the more precocious Sieboldii put in an appearance, and no candelabras. The Asiatic types displayed were the early blooming sorts such as roses and denticulata.

The individual awards follow.

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<td>1st, Blue Polyanthus</td>
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<td>2nd</td>
<td>Hall, Mr. E., Winlock, Washington</td>
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<td>3rd</td>
<td>Smith, Mrs. P.</td>
<td>1st, Seedling Polyanthus</td>
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Two new divisions were successfully inaugurated this year. The Novice Division designed to accommodate the entries of those never having exhibited primulas in any previous show and as a means of equalizing competition for beginners, and the Commercial Seedling Division to make known to and receive the reaction of the public to outstanding seedlings.

—D. O.
THE EXHIBIT OF MRS. A. C. U. BERRY

This year the exhibit of Mrs. A. C. U. Berry drew as many connoisseurs of fine china as collectors of auriculas and, because the introduction was so unique and the plates themselves such a delight to auricula lovers, a description of them seems called for even before the auriculas. Reproduced on each of the twelve plates was an old florists' auricula against a background of turquoise blue. The denseness of the black velvet backdrop on which the Spode was arranged brought out the beauty of each auricula. There was a gray one, a yellow, blue, yellow and brown, one which might approximate the old "murrey" color—a sort of mulberry—two lavender, a pink, red, henna, the celebrated green, and a leather-coat. The turquoise blue ground color carried to the edge of the plates which were limned in gold.

From the plates to the living auriculas was a natural transference of attention, and the two green edged, the red self, and the buff show types, together with some magnificent yellows of the border type and a purple alpine were carefully compared one with the other and with the Spode reproductions.

There were many more hybrids of the European alpine group in addition to the auriculas. P. pubescens, which clearly shows the auricula branch of its ancestry, was represented in the large, deeper-than-lavender colored blossoms with pure white pastes, or eye, known as Mrs. Porter; Blue Boy, a beckoning deep blue with snowy eye and Rust King's rusty-red ground color zoning a yellow eye.

P. hirsuta, a species ranging from the Pyrenees across the Alps to the South Tyrol which enters into both auricula and pubescens hybrids, was present in its white form, as snowy as its native mountains. This very beautiful variety of P. hirsuta is generally known as Nivalis of Gardens. Another form of the same type was a cream colored miniature, of polyanthus habit, with mealy, pale green foliage.

In the hybrids whose parents range from the eastern Alps to the Carpathians the foliage, instead of tending to the mealy or downy leaves of auricula-hirsuta hybrids, is more apt to be dark green and glossy, usually with short, pointed or oval leaves arranged in a tuft as a studded pin-cushion. The flowers of most of these hybrids are a rose lavender—or lavender rose—of varying petal shapes carried in different ways. Some of the blossoms are so large and the tufts of foliage so small, that one flower hovering aloft like a butterfly, will almost blot the leaves from view. It was apparent that Primulas Chusiana, Wulfeniana, minima and spectabilis were among the species which took part in creating, through various combinations, these rare alpine hybrids.

The Maritime Alps between France and Italy is one of the favorite ranges of P. marginata, a bluish-lilac colored alpine whose flowers crown rosettes of deeply toothed, heavily powdered foliage and it, together with P. marginata var. Linda Pope—a cool, remote, lavender aristocrat of great loveliness—were favorite plants. P. carniolica, a native of the same regions as P. marginata but which retreats to the shade, more cool and woodsy spots, was there in an orchid dress although it ranges from rose pink to pale lilac always with a snowy eye.

Both P. rosea, the brilliant carmine-rose alpine from India and P. pulchelloides, a Chinese-Tibetan of fragrant, mauve daintiness were there. The stately, delicious-smelling white P. chionantha, covered with what may be likened to golden meal or the dust of the roadside depending upon one's outlook, was grouped with a purple flowering cousin. The smaller woodland Asiatics, P. Reini and P. kisoana, both lilac in color, were curious to some inasmuch as the stalks of the first were hairy and the second, heavily bearded. P. Winteri being one of the earliest Asiatics to bloom was finishing off, but the large, deeply fringed, mauve flowers complacent amongst small, silvered foliage were still beautiful. It is one of the loveliest of primulas and native to the Himalayas at from 9,000 to 12,000 feet.

Of the Farinosae group of primulas, all differing somewhat but the majority generally tending toward a haze of pinkish-lavender blossoms carried in an umbel above silvered foliage, there were Primulas Loczi from Kansu, China, mistassinica from northeastern America, farinosa from England, and Scotica, the tiniest of all leveled, probably, from withstanding countless years of northern Scotland's biting winds.

A rich purple Primula amoenus from the Caucasus probably engendered as much enthusiasm as any primula shown and detailed description of the species is given on page 13. The entire display was finished neatly by an edging of the shrimp-plank P. Juliae hybrid E. R. Janes.
SOME MOISTURE-LOVING PRIMULAS FROM SEED
Mrs. John L. Karnopp

Do you raise primulas or do you only grow them? Social and civic authorities are asking parents, "Do you raise children or do you just let them grow?" In either case, primulas or children, the implication is the same. To raise means more than to grow. It means to prepare for, to love, and to study; it means proper food, right environment, and perhaps more than all, it means consideration of inherent tendencies and study of ancestry.

To succeed with primulas, or with any other class of flowers for that matter, one must either select a type best suited to the soil and situation that is available, or one must provide the soil and situation that will best suit the type selected. The former of course is the easier for the gardener and will probably afford more satisfaction and greater success.

According to the best authorities the primula family, when considered as garden subjects, may be roughly divided into three groups. The first two are the garden and the alpine. The former is the best known and the latter is the most challenging. The third group includes the moisture lovers and it is with these that we shall deal briefly.

Of those we know best, most come out of Asia and are candelabra in manner of bloom, whorl after whorl appearing successively up the stalk, often as many as seven to a height of from three to five feet. This startling method of bloom together with the varied and just as startling colorings, fairly take ones breath away. There are brilliant reds, pinks, lavenders, purples, yellows, flaming oranges and shades between, all with contrasting eyes, which bloom from April through June.

These strange primulas are found in profusion in the high mountain meadows of most of the ranges of Asia. They dip their toes in the cold glacial streams at an altitude as high as fifteen thousand feet and fringe the wooded slopes. They glory in rain clouds, and fogs. Japan, China, Tibet, India—all produce their share and are found as far west as the Caucasus.

In answer to the inevitable question, "Can I raise them"? We can only remind the novice that they are a race of moisture lovers. They require acid soil, of course, leaf-mold or soil generously mixed with peat moss. They abhor heat and drought and enjoy a cool, sun-protected situation. Gardeners with the problem of shade and a moist to soggy situation will be surprised to find how the candelabras will flourish for them.

It is impossible to describe more than a few of the easily grown in this short space. Japonica, from Japan, has been in the gardens of the western world for many generations. It has been developed largely by English gardeners and a few years ago one British seed firm listed eight different forms ranging from white through pink, rose, cherry, crimson and terra cotta to deep purple. Other firms listed still different variations. There are also hybrids, but comparatively few.

Pulverulenta, so named because of the white powder on the stems, comes from China and is a rich carmine-red. There are two beautiful pink forms of pulverulenta originating in England, the Bartley strain and Mrs. Berkley’s Annesgrove strain. The hybrid, Red Hugh, is a brilliant tomato-red and is a well known and worthwhile cross between pul-

verulent a and Cockburniana.

Bulleyana, from Yunnan, China, is a rich apricot, or buff-orange, with scarlet buds and is one of the most distinct. It is a favorite subject of hybridizers and has produced some of the most beautiful hybrids in pastel shades.

Beesiana is a robust primula, also from Yunnan which is very hardy and a late bloomer. It is violet to lavender with always the bright, yellow eye. Burmanica is thought of as an improved form of Beesiana and is a species native to Upper Burma found at the comparatively low level of 8,000 feet.

Cockburniana, another interesting primula from western China, has orange-scarlet flowers. It is smaller and daintier of growth than the others and is sometimes not quite perennial. It has been used extensively in crossing with the more rugged species and it enters into some of the most beautiful strains on the market.

Before the candelabras start to bloom, P. denticulata from the Himalayas has flowered and gone. In fact it is so early some protection from heavy frost may be needed in less favored sections of the country. Its flower heads are globular and the color is usually lavender, violet and sometimes white.

A few more moisture lovers that are not candelabras must be included. Primula florindae, the yellow-belled Tibetan whose home is the marsh or bog begins to leaf out late in the spring and is usually blooming in July. This habit of putting in a late appearance is often fatal inasmuch as it risks being dug up or buried by gardeners to whom it is new.

Rosea, as its name indicates, is rose—a very brilliant rose—and only six or eight inches high. It blooms almost before the leaves show in the early spring and is most hardy since it comes from along the icy streams of the Himalayas.

After one has made a beginning, many of these moisture lovers will self-seed under favorable conditions. All may be increased by division. Seed should be secured as soon as possible after ripening for best results. Fresh seed germinates in a few days but if kept stored until the following spring it may not respond for months and may not come at all without mechanical aid such as scarifying or the freeze-and-thaw treatment.

When only a few plants are needed for the home garden we favor the use of the pre-war coffee tins for planting containers. These are easily handled and they hold the moisture better than pots. Three or four nail holes in the bottom and a handful of sphagnum moss furnish the necessary drainage. They can be easily set in a pan for bottom watering.

The soil we use for seed planting is sifted leaf mold or well rotted compost mixed with a little sand and this is either baked or treated with boiling water before planting. The fresh primula seed are scattered carefully over the surface of the soil which must be soft and loose. Except for very large seed they are simply pressed into the soil with the bare hand. For larger seed a light sifting of soil may be necessary before firming. Each container is set in a pan of water after planting, and is soaked to the top. It is never allowed to dry out until the plants are transplanted.

Seed gathered and planted in June, July or August germinates.
quickly and makes strong plants by late fall. Under favorable conditions they should have a three-inch root system by that time. We transplant into moist, rather heavy soil with an assurance in this climate that nature will keep them wet. In fact, we have had them stand under water and ice with no apparent harm. They lose their leaves, of course, but by spring, when their crowns appear, they are far ahead of those wintered in the flats. In the east where fall growing weather is limited, and in more open situations where the soil is light and very well drained, there will be the danger of heaving and rootbreakage by the frost. In such case, seedlings should be transplanted as soon as possible to the flats that will carry them through the winter with the necessary protection. Although we have never lost a plant through heaving, our greatest danger is the drying east wind, and watering must be resorted to. If seedlings are to be wintered in flats they must be placed in a sheltered place and protected from drying winds and frost action. Here a south or west exposure is best. It is as important that they be kept moist in winter as in summer, and they should go into freezing weather well soaked.

We have used the summer planting method with many varieties of the primula and have had good success. Sometimes we have resorted to snow-bank protection and they always come through with flying colors. This includes the polyanthus which make wonderfully strong plants and bloom profusely the second year, some gardeners flowering them the first year.

The First Honorary Life Membership

The American Primrose Society has awarded its first Honorary Life Membership. In appreciation of Mrs. A. C. U. Berry’s comprehensive knowledge of primulas gained through years of devoted study, experiment, improvement and collecting; in recognition of a collection of primulas unequaled in the United States and which would, to put it modestly, compare favorably with the greatest collections of Europe; and in acknowledgment of her untiring work in preparing large, complimentary exhibits for the three Annual Shows of the Society—without which great beauty and much information would have been lost to the public—the honor was unanimously approved April 18th.

In all probability, Mrs. Berry is better known in Europe than in America, for America has but recently awakened to the glories of the primula and, consequently, to those who have worked in its behalf. For many years Mrs. Berry has quietly carried on her work in Portland in close collaboration with the great botanic gardens of the world. The Royal Botanic Garden in Edinburgh, undoubtedly the citadel of primula knowledge, has long been in the habit of sending seed of the rarest and most recently discovered primulas to Mrs. Berry for cultivation, observa-

(Continued on Page 15)

**MULCHES AND PRIMULAS**

Paul Van Allen

Being one of those lazy gardeners who is always trying to grow things without work—or anyhow a minimum of work—I started early trying to devise ways and means of keeping down weeds without cultivation. That, coupled with the high cost of water in the section where we live, led me to try mulches of various kinds and on a great diversity of plants.

Now a mulch can be anything from a sheet of light-weight roofing paper through the entire galaxy of commercial products to stone chips, grass clippings and sawdust. I have tried many of them and they all have their place.

I have used mulches on primroses with what I think is very good success. Any of them seem to work equally well. I apply the mulch in the spring after the first cultivation and fertilizing, which is done before new growth gets too big a start. After the mulch is put on nothing further is done until the following spring when the old mulch is dug into the soil and a new one put on.

Due to the fact that this moisture retaining mulch is undisturbed through the summer and fall, I always have a wealth of self-sown seedlings to re-stock the planting with, and if one is careful which plants he lets go to seed, the color of the hybrid seedlings is not too bad and the species seedlings leave nothing to be desired. All self-sown seedlings seem extremely robust.

Around Europeans such as the English types, I’ve used sawdust, chaff from the threshing machine, oat and barley hulls, grass clippings and peat moss. A favorite stunt of mine is to mix sheep guano or finely pulverized barnyard fertilizer with the mulch. Also some oyster shell meal for the lime lover.

On the alpine primulas and auriculas I like a fine top dressing of stone chips or screenings from a rock crusher, and oyster shell meal for the lime lovers. They resent having mud splashed in their faces, so the chips serve a two-fold purpose.

The Asiatic types are, in most cases, bog plants, hence resent lime, so my preference for them is peat moss or grass clippings, plus any complete commercial fertilizer with a pinch of aluminum sulphate added for an acid reaction which improves both growth and color.

Please Include Postage When Requesting Seed

Seed of Meconopsis Baileyi, the sky-blue poppy of Tibet, and Primulas pulverulenta, pulverulenta Bartley pink and Bulleyana—red, pink and buff candelabras in a mixture—may be had by members upon request to the Corresponding Secretary. Other seed will be available at a later date.
There is not any one flower that gives me more of a thrill than Primula vulgaris. Around the Moray Firth, where I spent my boyhood days, it is to be found in the early spring, blooming by the thousands on the banks and braes by the burns (creeks) and on the dunes by the sea—is something one could never forget. My brothers and I spent many a happy day picking bunch after bunch and taking them home for mother, filling every available dish. Occasionally we would find a delicate pink primrose among the yellow and all would make a run for it much as children here scramble for a four-leaf clover.

To get to the sea from Duffus House, where I served my apprenticeship as gardener, we had to walk one and one-half miles down through the grassy, rolling dunes, over the cliffs and sea wall of natural rock. There they grew by the thousands, primroses and more primroses down to the very edge of salt water. You could not step without trampling them under foot. The only amazement now is how they managed to live and multiply on some of the places where they are found, so wind swept and bare of soil it is. Not a tree, only short grass, moss and whins (gorse). Here they grew very short and stubby, as also did the whins pruned as it was by the north wind. Looking from the top of the sea wall across the valley, you could see such pruning on a large scale... as though Paul Bunyon had sliced the tops off all the trees, oak, birch and beech alike.

On the braes by the burns further inland, the soil was better and they grew more luxuriantly. One of the prettiest sights I have ever seen at Loch Romach. At the bottom of the 10 to 20 foot cliffs were large boulders making a perfect, natural rockery with primroses growing in, out and around in wild profusion. A half mile away you could smell them when the wind blew their fragrance in long waves or short gusts, depending upon its fancy. Although we can improve on the size and color of primroses, we can never improve or enhance their fragrance.

After I served my apprenticeship I went to Pitfour House near Peterhead which is about eight miles from the sea. Here there were not quite so many wild primroses, but in the Pitfour gardens there were many beautiful hybrid varieties, the doubles, hose-in-hose and other old forms. From Pitfour House I went to work in the gardens at Balnahard Castle, the King’s highland home, which is well up amongst the hills. There Primula vulgaris was found only by the burns. They did not seem to be so prolific as nearer the sea shore. In the Castle gardens were many rockeries and plantings of primrose hybrids and old varieties, practically every primrose known at that time. There was scarcely a cottage garden but had primroses of some sort. They seemed to bloom and do well without much care. I still get a thrill when I find a yellow primrose in a collection. It’s like finding an old friend.
wide open flowers are held in a one-sided umbel together with its oxlip-like foliage puts it more in the oxlip class than the polyanthus. Nor is it always mauve or purple. This particular specimen is, according to Ridge- way's "Color Standards and Nomenclature", hyacinth-violet with a naphthalene yellow eye, which is always small. But, due to the fact that it ranges over a wide territory it develops varying local forms, and pink, rose, and occasionally white have been collected along with the mauve and purple varieties.

In 1890—the plant was introduced into England in 1831—a deep rose, beautifully fringed P. amoena, further described as Distinction, was exhibited at the Royal Horticultural Society and given the Award of Merit. In March, 1938, a violet colored form much like the pictured one, was exhibited by Major F. C. Stern which also received the Award of Merit as a hardy border plant.

P. amoena is said to be a native of Armenia also, but so far, the only material that has come to hand is an account of its home in the Caucasus found in a most interesting travelogue, "Plant-hunting in the Caucasus" written by W. E. Th. Ingwersen for the R.H.S. Journal of October, 1936. In June and July of 1935 Mr. Ingwersen and a party of friends botanized parts of the tremendous range of the Caucasus in search of rare alpine plants. From the shelter hut on Mt. Elbrus (almost 18,600 feet), the hut itself at the edge of permanent snow, a stiff climb was made over black rocks and scree-like slides of black lava and there the first plants of P. amoena were found in its typical mauve-blue form. A short digression on the immediate surroundings adds additional climatic information—the hall and sleet showers in mid-summer, the resulting avalanches, the green glint of hanging glaciers, their slipping and grinding with each slide.

On Mt. Kazbek (over 16,500 feet) a short distance to the east of Elbrus, P. amoena was found in company with P. algida, akin to the Farinosaes; P. nivalis Bayernii, a handsome and distinctive white primula said to be the only nivalis native to Europe; Gentianas pyrenaica and verna alata with campanulas everywhere, all at around 10,000 feet.

At another alpine spot of greer, foaming torrents and primeval woods the party collected some striking specimens of P. amoena in pink, nearly rose, pale mauve, purple and a few albino types after the undergrowth (including Linnaea borealis, or twin flower, Daphne mezereum, and the tall, straw-colored Lilium monadelphum Sztotizlanum) gave way to moraine. Here, also, grew P. officinalis var. macrocalyx—a cowslip with an out-sized calyx—together with primulas that gave every evidence of being hybrid between amoena and the large-flowered cowslip.

Because P. amoena would easily cross with the other vernal primroses of its Section, it may prove itself of value in this way after distribution becomes possible. But now the important thing in its history is that it was exhibited at the Third Annual Show with passport correct and in order. Not much longer will its light be hidden under a bushel of names.
**Summer Water, Broadleaved Trees and Primulas**

There are more primroses lost through insufficient water during the summer growing season than from winter cold. Where some types may get by in some climates, there are those, such as many of the candelabras, which will not gain the relative safety of winter but will dissolve into mush unless water is regularly and thoroughly given throughout the summer when old roots begin to disappear almost before the new roots have dug into the ground. The warmer and dryer the climate, the more shade and water most primulas must have and, since shade trees provide welcome refuge, they are favored in planting situations. And rightly so, but there is the danger of underestimating the amount of water such large, broadleaved trees will take from the ground by evaporation on a hot day. Samuel B. Green in his "Principles of American Forestry" states that such trees will give off a barrel of water a day in dry summer weather. A higher figure is given as a result of a European experiment which found that the amount of water transpired by the average deciduous tree per pound of dry matter on a hot day was 470 pounds and the average evergreen, 43 pounds. Some trees were found to evaporate more than others, the birch and linden up to 700 pounds per day; ash, 600; beach, 500; maple, 450; oak, 300. In another experiment a birch which was calculated to have transpired not more than 2½ gallons of water on ordinary days evaporated 112 gallons on a hot day.

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**AURICULAS IN WYOMING**

To the Editor:

The primroses are all doing fine and most of them are in bloom. Those with the heart-shaped leaves (auriculas) are most beautiful and the daisies last a long time. Although we had a very hard winter lasting from the first of December to mid-March, they weathered in perfect condition. I uncovered them about the first of May. Ice was still around them but the leaves were as green as could be. All through the month of May we had snow and frost, but the plants remained beautiful and unfurled. I don't see why more people in the East do not raise them when they will grow in this climate which is the worst in the country. Here it is the second of June and we had frost last night so you know what we have to contend with.

Yours respectfully,

HARRY T. KEELER.

Note: See page 91, January, 1944 Quarterly.

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**Summer Seeding**

Speed is the guardian angel of summer sown seedlings. Fresh seed will germinate in about two weeks, but slow thin to guarantee a good air circulation and to allow space for unhampered growth; keep moist by watering from the bottom, give a limited amount of dappled sun instead of direct; transplant to permanent positions six to eight weeks later and keep growing constantly to develop as a complete root system as possible before freezing weather sets in. In climates with limited fall growing weather it is safer to transplant to flats and give winter protection.

**Dividing**

For July and August division of primroses see page 19, No. 1, Vol. 1.
Primula Charm
Enhanced by Companionate Planting
Visit
Swiss Floral Nursery
for ideas and stock
1945 delivery only. Sold out for the current season.

FRESH PRIMROSE SEEDS
POLYANTHUS MIXED COLORS, all shades of blue, pink, purple, yellow, white, and yellow from exhibition stock. Pastels to dark maroons. $1.00 per packet.

ACAUCAUS MIXED COLORS, including giant white. $1.00 per packet.

AURICULAR MIXED COLORS, Pastels to dark velvet shades. $1.00 per packet.

Helen's Primrose Gardens
16001 N.E. Halsey
Portland, Oregon

The American Primrose Society salutes the professional growers for their progressive work and efficient cooperation with the society, all of which has substantially encouraged and furthered the understanding of this lovely flower in the United States and Canada.

Primroses
Collection of Polyanthus and Acaulis from the world's far corners. 1945 delivery only. Sold out for the current season.

Alpenglow Gardens
Michelle & Co.
B. R. 1
New Westminster, B.C.
Canada

Hand-Pollinated
Polyanthus and Acaulis Seed in mixed colors from selected English stock. $1.00 per packet.

Crestdale Nursery
4065 S. W. Crestdale Drive
Portland 1, Oregon

1944 Crop
AURICULA SEEDS
from English and Scotch prize-winning stock, all of which have been selected over a long period of years. Seeds in mixture from white, pink, purple, yellow, blue, and vivid red plants. $1.00 packet, $1.00 half packet.

JULIET HYBRIDS, P. NIBOOLI
35 named varieties, white-pastel, dark shades.

Lakewood Primrose Garden
Lou Roberts
2102 10th Ave.
Milwaukie, Oregon

The catalog has been mailed to those interested in specialty hardy primroses and alpines from the world's far corners.

All classes, many varieties, some species.

CROCUS—Dutch and Alpine
Calanthus, Eeuwbile, Colchicum
Hyacinthus and other rare and unusual bulbous things.

Catalog
Primroses and primrose seed in season
Offered by
Tulip Orange
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