President's Message

May 1984 be a happy New Year for all!

Nineteen-eighty three ended in sorrow for me. After a four year battle with cancer my wife, Dorothy, died on November 26. It is because of our many plant oriented friends and our work with primroses and in the American Primrose Society that I can look forward to a full and enjoyable life. Plans are in the works to make the Spring 1984 issue of the APS Quarterly a memorial issue for Dorothy.

So far this has been a severe winter for the entire United States. Here in the Pacific Northwest we have a start for a typical bad winter with a week of zero temperatures before Christmas followed by warm and rainy growing weather. Daytime high's in the 50's and no frost at night. To complete the typical bad winter we sometimes have two more deep freeze periods after warm growing weather. These false springs confuse many plants into starting their growth in the middle of winter. This adds to our definition of a hardy plant "the ability to stay dormant until late spring and survive long periods of winter rain without drowning or rotting". There are a lot of cold hardy primula species that are difficult or impossible to grow here without special protection. Each section of our country has its own problems for primula, mainly fluctuations of winter temperatures without a reliable snow cover and variations in summer heat along with its humidity.

Sometimes we can grow a species for a few years. We think we have learned the secret; then, one of these exceptional winters or summers happen and we lose them. That is when the great advantage of the seed exchange comes in. Since primula are easy from seed, we can get seed and start over if people have shared their harvested supply. Sometimes thru repeated efforts with seed saved from plants in captivity a species may adapt to cultivated conditions and become a reliable garden plant.

For this reason it is important to save seed from all species you grow, plant again and select. This is generally a slow process of change; but, not always. Drastic mutations occasionally occur. We should all be looking for the mutations that result in a more desirable garden plant and increase that plant by seed, division, or cuttings as circumstances dictate.

Don't just grow pretty flowers. Accept the challenge of taming new species by growing them from seed, selecting superior seedlings, sowing their seed and continuing the process. It will add a stimulating purpose to your life and maybe you will be able to contribute a new and better plant to the world.

Herb Dickson
The Origin of the Barnhaven Cowichan

by Florence Bellis
Lincoln City, Oregon

The origin and development of the true Cowichan polyanthuses—that siren strain whose beauty lures and ensnares all who come within her range—has, in the last decade or so, become a matter of myth, hearsay and conjecture. As the originator I feel moved to go back over my records and pass on the true and, I think, interesting story of this strain popularly considered to be the most outstandingly beautiful in the hundred year history of the garden polyanthus. It is the story of a flower that put itself without reservation into the hands of its hybridizer.

Otherwise how could a hybrid be fixed to faithfully reproduce from and pass on the true and, I think, enforces all who come within her and deeper shades of garnet and clone in a few generations? How could it be cajoled into producing a husky, free-flowering, fertile replica of the clone. The foundation for the Cowichan strain was laid.

But the riddle of the clone's parentage remains unsolved, and as I dig into my records I am convinced that it never will be. Because of its bronze-touched leaves, intermediate size and general appearance, the common assumption was that it carried Juliana blood. However, the only Julianas in general circulation prior to Cowichan's appearance were of cushion, or acaulis, form. Two magentas, 'Jewel'

obtained it from the Nories. They increased it and showed it in their exhibits in Spring Shows in the old Willows Point Building in Victoria. The Palmers Garden was the first to distribute the Cowichan Primula commercially."

Others also arranged Cowichan exhibits at the Victoria Spring Shows "made up from plants and flowers collected in the Cowichan Valley". Visitors began asking the Palmers "where they could buy the Cowichan Primula, and it was in this way that the Primula received the name 'Cowichan'". We all can understand why "the Nories were not very happy over the change of name from 'Norns' to 'Cowichan'...". Cowichan Station, in the Cowichan Valley, is but a short drive into the countryside from Victoria. And Victoria! That lovely English-flavoured, flower bedecked city sitting on the very southern tip of Vancouver Island, was but a long day's journey by car and ferry from Barnhaven in Oregon.

After some ten years of busy propagation by numerous nurseries trying to keep pace with the ever growing demand, the clones—of necessity sliced thinner and thinner—became exceedingly frail. My struggling sterile mite bloomed only once in 1942 before passing on, but that one last gasp gave me enough pollen to start my records I am convinced that it never will be. Because of its bronze-touched leaves, intermediate size and general appearance, the common assumption was that it carried Juliana blood. However, the only Julianas in general circulation prior to Cowichan's appearance were of cushion, or acaulis, form. Two magentas, 'Jewel'

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The remaining conjectural possibility is that the strain's pollen parent, Cowichan, sprang full blown and perfect from the head of Zeus as did the seed parent, Kwan Yin. Both passed their proud carriage on to their offspring. In forty years of breeding not one plant has displayed a hint of acaulis form—with one exception. It took seven generations to breed out the last vestige of acaulis from the blue Cowichans—three or four generations after the eyeless blue came steadfast and true from seed. Fourteen years to breed out my mistake of using a blue acaulis simply because it had the smallest eye on the place. The time could have been cut in half had I used a blue polyanthus regardless of eye.

In the 1930s the best red polyanthus strain on the market was Sutton & Sons' Brilliance. There was one plant from my initial packet of seed that was truly brilliant—a flashing Chinese red with an exquisitely pointed gold star; almost black wavy stalk, tall and slender, and dark footstalks; compact, deep green foliage. The entire plant suggested the elegant form and line of the Chinese goddess of mercy, Kwan Yin, and so it was named. Sufficient stock had been built up to list it as a named variety in 1942. As I looked from this vigorously flowering plant to the weakly blooming Cowichan (knowing variety in 1942. As I looked from this star eliminated as though it had never been, the dark stem and happy con-

stitution transferred to the newly born Cowichan strain. It was listed for the first time in Barnhaven's 1949 catalog: "COWICHAN STRAIN—Three generations removed from the named variety 'Cowichan' but with the same smoldering lustre and almost absent eye. Colors are intense garnet to almost black garnet, ox-blood ruby . . . clusters neat and compact on dark, wiry stems".

Kwan Yin continued to be listed on and on as a named variety throughout the '40s, but clonal propagation could not keep up with its spreading fame after it was mass-displayed at the American Primrose Society's first show (1942) in Portland (Oregon). Contrary to legend, it was Kwan Yin, not Cowichan, that Frank Reinetl (Vetterle & Reinetl, Capitola, California) first used in his Pacific Strain—its "brilliant flame red" to brighten "our reds, up to that time a dull magenta". I well remember our sparring conversation as to the size of Kwan Yin's blooms, then and thereafter. Later he incorporated the Cowichan strain for a different purpose.

Kwan Yin's popularity made it apparent that it would eventually go the way of most primula clones, that if it was to persist it would have to be as a strain. A reciprocal cross was made by enlisting the clearest red polyanthus of faultless form, selecting and stabilizing the progeny for three generations and, in 1950, it was offered as a strain which continued into the '60s. It was then taken over by the sultry Little Egypt series named in a light moment for the belly dancer who stunned spectators at the Chicago World's Fair.

After tracing her advertisements in the American Primrose Society's Quarterly, I find the first offer of Crown Pink seed in the October, 1950 issue. In 1947 she brought me a few of her plants, not quite as frail as their founding parents but still in delicate health from which they never fully recovered. At the time all other pinks, so-called, carried a load of lavender that stuck like glue. By using the pollen of her pink princesses on my robust and hardy lavender-pink peasants, Barnhaven in 1954 offered: "PASTELS: Apple blossom, wild rose, mallow pink, peach, rose, coral, raspberry and maraschino". In 1958 these, with additional shades, were listed as NEW PINKS, all of which still come true from seed. By that time Miss Eickman had passed on.
Her Original strains have long ceased to exist but they live on in health and hardiness in Barnhaven's New Pinks and Desert Sunsets. And she lives on for all who knew this self-effacing, gentle nurse who gave us our first sight of a truly pink-pink polyanthus.

These first wide-eyed New Pinks started me dreaming of an eyeless pink Cowichan strain. Light garnet Cowichans and raspberry and maraschino pinks fought it out for years, neither quite winning by 1964 when the first Venetian Cowichans were exhibited in a Portland show. They were as sensational then as they are now in shades of strawberry, Venetian and mandarin reds with the same hot sheen—are they pink-reds or red-pinks?—eyeless, often with a black bee as though someone had been in the coal bin and then pressed a thumb on the base of each petal. Small wonder they are fancied by gardeners and by those who claim them as their own origination.

The first blue Cowichans of perfect form also made their debut at this same show. And as with the form also made their debut at this same show. And as with the

The family Primulaceae consists of some 500 genera, mainly from the Northern Hemisphere; there are 28 genera in the Alpine flora including Androsace, Cyclamen, Dodecatheon, Douglasia, and Primula.

Androsace. These are mainly European with a few species coming from North America and Asia. The genera is divided into four sections according to habit and flower characteristics; these are as follows:

1. Pseudoprimula - not of very great interest to the alpine gardener.
2. Chamaejasme - This section includes such species as C. lanuginosa, sarmentosa, primuloides and villosa.
3. Aretia - these are the gems of the genus, producing tufted cushion plants, many of which do not grow well in wet winters. The following are popular species—A. cylindrica, imbricata, hirtella, pyrenaica.
4. Andraspis - these are all annuals and have no appeal to the alpine gardener.

Cyclamen. The hardy species are all good garden plants and are very popular, e.g. C. hederaefolium, coum, europaeum, repandum, etc. These are raised from seeds sown as soon as ripe (July-August). Seeds must be sown ¼" deep and the resulting seedlings overwintered in a cold frame. Old seeds are erratic in germination and should be soaked in water for 24 hours before sowing. In most cases ripening seeds must be protected from ants and mice.

Dodecatheon. All are North American found growing in the western mountains. Very popular plants, but somewhat disconcerting to the amateur gardener due to the foliage dying back early in the season. Popular species are D. clevelandii, hendersonii, media, and pauciflorum.

Seeds should be sown as soon as ripe in June and placed in the open when the seedlings emerge in March or April. Division of the crowns may be

Reprinted from the National Auricula & Primula Society (Southern Section), England, Yearbook 1983.

Barnhaven P. x cowichan pink
carried out as soon as the foliage dies back. They may also be propagated from root cuttings 1 1/4” to 1 1/2” long taken when the foliage dies back in June.

Douglasia. This genus is very closely related to the Androsaces. There are 3 North American and one European species. The most popular are D. laevigata and var. ciliolata, D. vitaliana, and var. praetulenta. These may be raised from seeds sown in trays in the open in January. Cuttings inserted in sandy compost in a closed, unheated frame in May or June root readily.

Primula. This is a genus of over 500 species, mostly European. Most species have long and short-styled flowers (pin and thum eyed), there are 5 species: Cortusoides section - mainly woodland species from Japan and eastern Himalayas. These do not require cold for germination but fresh seed and exposure to light is essential. P. sieboldii, best sown in March or April. Vernaes section - European species including our native primrose, cowslip, and oxlip. These are easy providing they are not exposed to temperatures above 20° C. Farinosae section - this is the largest section in the genus of which approximately 20 species are in cultivation. They are mainly Asiatic but some are from North Europe, North and South America. P. Farinosa - very variable; cold treatment does not appear to be required and seedlings may take two years to emerge. P. frondosa - very easy under all conditions. P. modesta - Japanese species and very easy. P. rosea - if seeds are sown as soon as ripe they germinate within a month. Denticulata section - P. denticulata is the only species commonly found in gardens. Seeds require exposure to light and temperatures within 10° C and 15° C for germination. Capitatae section - P. capitata and var. mooreana are easy and tolerant of freezing and temperatures up to 40° C. Muscarioidea section - the most popular species in this section is P. vialis. This is easy if seeds are fresh when sown, or stored cold and sown in March in the open.

Nivales section - seeds of species in this section are relatively easy to germinate provided they are sown fresh. Seedlings need careful handling when prickling out, watering in with Benlate solution. P. chinamandra and P. melanops seeds benefit from cold storage. Sikkimensis section - all species in this section do well under high moisture, producing copious seeds which germinate freely. P. alpicola - seeds are best sown in March. P. floriniae - fresh and stored seed germinate well. Cold treatment is helpful. P. ioessa - cold treatment is desirable for germinating seeds. Candelabra section - this is a large section with 12 species in general cultivation. Seeds produce large plants and require moist conditions. P. aurantia - stored seeds sown in March germinate well. P. bulleyana - seeds germinate well under all conditions. P. cockburnia - soak seeds for 24 hours before sowing. P. japonica - 6 month old seeds germinate best. Seeds should be stratified and not exposed to temperatures above 15° C. P. pulvenerula - seeds germinate best at temperatures between 10° C and 15° C. Auricula section - these are all from the European Alps and seeds germinate best when exposed to cold. P. auricula - fresh seeds germinate well without cold. P. integrifolia, P. marginata, P. minima and P. pubescens all require exposure to light and cold.

VEGETATIVE PROPAGATION
Division may be carried out on all Primulas and is best done after flowering. Plants in all the Auricula section may be increased by stem cuttings taken either after flowering or in August, inserted in a peat and sand compost and placed in a shaded cold frame.

Root cuttings may be taken to increase P. denticulata, and is practiced to obtain good colour forms. Strong roots removed in June, chipped into lengths of 1 1/4” to 1 1/2”, dusted with Benlate, and mixed with chopped sphagnum moss are placed in clear polythene bags. These are hung in a cool, well-lit situation until roots and buds can be seen, then the cuttings are removed and potted by individually. Alternately, portions of root are inserted vertically in trays of sandy compost with the top of the cutting level with the surface of the compost and placed in a cold frame. Polarity of the root cutting is important; they should be inserted with the proximal end uppermost.

Leaf cuttings may be used to increase species in the Petiolares section, e.g. P. whitei, bhutanica, bracteosa, edgeworthii, gracilipes, and scapigeru. Mature leaves at the base of the plant are pulled sideways in August or September. These will have a small bud present at the base of the petiole. Insert vertically in a sandy compost so that approximately 1/4” of the petiole is buried and placed in a cold frame. Rooting normally occurs within a month.

Trays of seeds which do not germinate in the first spring occasionally become covered with mosses and liverworts. Both of these pernicious “weeds” are controlled by watering with a solution of Algofen which, in my experience, is extremely effective and does not appear to be phytotoxic to any plants we grow.

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The Primrose from Garryard, Ireland

by E. Charles Nelson
National Botanic Gardens, Glasnevin, Dublin, Ireland

In various past issues of Primroses, accounts have been published of some Irish primroses. Indeed, there is an abiding legend—and I stress the word legend—that Ireland is inhabited by little old ladies who hoard primroses of ancient origin. It is not true, absolutely not true. There are some keen primrose growers in Ireland but I could count them on the fingers of one hand. I am not a primrose fanatic myself, and so I declare my interest in Irish cultivars by saying that I am trying to compile a list of all the garden flowers (primroses included) that have been raised in Ireland since gardening began. Most recently I completed a book on Irish garden plants and while writing it, I tried to obtain information on some of our fine old primroses. As with so many other plants, I find that the histories published are often incorrect in minor, but highly significant details. What I present below is my information of the primrose from Garryard.

Cecil Monson provided many basic facts in his article which was published posthumously in Fall 1977 (vol. 35, no. 4). He stated that the first Garryard was raised by a 'certain Mr. Whiteside Dane' and he appeared to suggest a date about 1900. Mr. J. Whiteside Dane was a prominent citizen of County Kildare, a county lying west of Dublin, in the late 1800s and early 1900s. In 1896 he was a member of the Kildare Archaeological Society and resided at Oubertstown Hill. About 1903 he moved to Abbeyfield near Naas, but it was not until 1912 that his address was given as Garryard, Johnstown, near Straffan in County Kildare—I stress again that Garryard is the correct spelling (see Cecil Monson's article in Fall 1977). At this time Dane was the deputy lieutenant for the County, but by 1922 he had retired and moved to County Cavan in the north of the country.

To date, I have been unable to obtain any further information about J. Whiteside Dane, but I am still looking. The information provided by the records of the Kildare Archaeological Society suggest that the primrose he raised could not have originated before 1912. Strangely, I found some confirmation of this when I was looking through the records of the National Botanic Gardens. Mr. Whiteside Dane was obviously not a well-known gardener, for he only receives one entry in the Gardens list of donations. In May 1919 he obtained from Glasnevin the following primroses—Primula ciliata, P. 'Linda Pope', P. involucrata and P. ciliata 'Superba'. There is no record of any gift to the Gardens from Dane, but in March 1920, less than one year later, plants of 'Dane's primrose' were sent from Dublin to a gardener in County Limerick.

I believe that this is the first record of the plant that was later known as Primula 'Appleblossom', which as pointed out by Cecil Monson, is the original and only Garryard primrose. Confirmation of this date appears in a negative way. I have searched many British horticultural journals as well as the only contemporary Irish magazine (Irish Gardening published between 1906 and 1922) and can find no reference to any Garryard (i.e. bronze leaved primrose) before about 1930. Had such a remarkable plant as 'Appleblossom' been widely available it would surely have been mentioned. Indeed, several enthusiastic Irish writers, for example Miss Eda Hume, hardly ever noted these bronze cultivars before 1940.

With the passage of time, and a woeful lack of interest in recording the history of our garden plants until recent years, I fear we will never learn the true and accurate history of the original primrose from Garryard. But, I am trying to put together what information is still available, and to trace any old records that may still survive. Perhaps in a future issue, I will be allowed to list our Irish primroses, plants like 'Guinivere', 'Kinlough Beauty', 'Tipperary Purple' and 'Our Pat'. The complete list is not too long, but the list of those which survive is very short.

It is sad that the little old primrose ladies of Ireland should have departed from our knowledge. I do not know when the legend began, but I was surprised some months ago to see a lady suggesting that perhaps some of the old-fashioned primroses might survive in the neglected gardens of Ireland. That is what Juliana Ewing wrote in 1884, one hundred years ago, in answer to an enquiry about hose-in-hose primroses!

The APS Open Door

To receive my first request through the APS Open Door was quite a thrill! Since the Fall Quarterly 1983, Volume 41, No. 4, I have been busy corresponding with potential sources (seedmen, nurseries, friends, etc.) and the response has been most gratifying. The notes of encouragement have been wonderful!

As a brief reminder to members of the APS, the APS Open Door is an ideal opportunity to locate, trade, sell, and share primula plants, seeds, resources, knowledge and related items with other members via the APS Open Door.

Anyone who would like to participate in the APS Open Door can either contact me or those who have already made a request.

Mr. Harry Melchior, Str des 13, Januar 85, 6020 Volklingen 4, West Germany
Wanted: P. x "Emily" (raised by Cyrus Happy)

Mr. Gordon Emerson, 1850 Route 45, Rock Creek, OH 44084
Wanted: P. x polyanthus "Marie Crousse"
P. x juliana "Edith"
P. x "Red Hugh"
Can Trade: P. x juliana "Kinlough Beauty"
P. juliana "Apple blossom"

Miscellaneous request

The door is open, please write to:
Harriet Gurney
42 Water Street
Fairfield, Maine
phone (207) 453-2313

The door is open, please write to:
Harriet Gurney
42 Water Street
Fairfield, Maine
phone (207) 453-2313
The Auricula Primroses

by Alice Hills Baylor
Stowe, Vermont

The European mountains are rich with those primroses that delight in calcareous crevices. They have distinct characteristics which differ from the meadow primroses. The foliage is smooth, thick, and leathery. The one from the Alps which takes the group name, *P. auricula*, is a fragrant yellow with a white eye, bearing six to nine open florets in a bunch on a stout stem. The leaf edges are smooth and without farina. This wilding has been hybridized for generations to form many types and in a large range of colors. It has naturally crossed with other members of this group in the Apennines and Carpathian Mountains. The most popular crosses have been with *P. villosa* (blue to lilac) and with *P. villosa* (violet, rose and pink) to give some of the variously toothed edges, leaves with powder on both stems and leaves, and many colors, pink, lavender, purple, one so dark as to be called Black Prince in such a wide range of colors as to defy description. These hybrids are called garden auriculas and are sturdy and need no pampering whatsoever. Some of its ancestors have given farina on leaves and stems to give a plant with silvery foliage. Others have deep green leaves, some toothed, some smooth edged. That is the fascination in growing auriculas for they are varied in color and foliage. All are good garden subjects because of the sweet scented, often ruffled flowers, from ten to twenty on the stiff stem; the ease with which they can be grown and the flourishing colonies they soon develop. They will enhance a partially shaded portion of the rock garden or border with great beauty. Some gardeners shy away from a plant which suggests "an alpine" believing it will take special care or be short lived. Not so with the garden auriculas which need no coding as they hail from rugged peaks and will endure cold and wind.

The double and semi-double *P. auriculas* are delightful plants for one's garden. The supply I have came from Ralph Balcom who worked tirelessly towards the true double. His are sturdy plants and multiply quickly from division. The first ones I had were semi-doubles, the next generation almost all came fully double. After that I separated the colors, pink; apricot; rose and a lavender, by cuttings.

In the early days of the eighteenth century the silk weavers of England grew and held shows for the auricula plants they hybridized. They fell into two classes, the show and the alpines. The shows are divided into two types: the edged and the selfs. Strict rules were observed which were as exacting as they are today in shows. The edged auriculas are sub-divided into colors: green, grey and white edged. The green edge takes the exact shade of the foliage in the petals; the grey edged are powdered to give that tone and the white edged is completely covered with powder or meal which rings the yellow center. This powder is referred to as paste and this band is circled by a body color which merges with the edge. The show auriculas are treated as pot plants and are kept in a cool greenhouse or alpine house as the rain ruins the paste.

The group termed alpine auriculas has no farina and is smaller in all its parts. They do not need pampering and will readily grow in garden conditions, especially useful in the rock garden. The center is either deep or pale yellow with the petal color clear and true. The little one called Searchlight is a brilliant, glowing red. There are pink, lavender and deep reds. The soil should be porous with stone chips, enriched with dry cow manure, and wood ashes, and mulched with small stones. The auriculas in the subsection of the short bractted group (*Brevibracteatae*), are among the most beautiful and all make excellent garden plants, especially for walls or the rock garden. *P. marginata* may be the best loved of any in this group. Its native home is the Maritimes and also in the Cottians, usually in limestone but often in slate debris. There are many handsome forms of *P. marginata* with leaves three to four inches long edged with silver grey. One of the best of these has an umbel of French blue flowers held on two to three inch stems above the mat of many rosettes. It does best in a cool stone wall edging the garden auriculas. The rosette is long for the size of the rosette. We put ours in the low stone wall edging the garden auriculas. The bloom is so early that often the delicate blue umbel will peek out from an edging of wet snow. All the forms are deliciously fragrant, one of the best is LINDA POPE. Then there is a near white one called, WHITE PEARL, that is nearer a cream colored. I have some deep lilac and purple hybrids from my good friend, Ivy Agee who had done splendid work in this group and especially with *P. allionii*.

*P. carniolica* is in the same subsection and is also very fragrant. Its native home is in the European mountains in sub-alpine meadows. Therefore it needs partial shade in a humus filled soil. It has long, narrow, sharply pointed leaves that are a glossy dark green. The flowers are tubular in a pure soft rose color with a startling wide white eye.

*P. viscosa* is also in this group and has been often confused with *P. hirsuta*. It is a widely variable plant depending on where it is found growing in the Maritime Alps. The leaves are long, six to eight inches, and three inches broad. The flowers are a one sided umbel in lavender or violet. There is a rose colored one that has been known as *P. viscosa var. latisolia*. This form is different also as the foliage is a yellowish green, shorter and very glutinous. The scape is three to six inches on which it carries an umbel of many flowers which vary in shades of pink to rose with a white eye. The primrose called *P. rubra* may be a natural hybrid with *P. viscosa*. There is confusion as to its origin. It is one of the choice primulas for the rock garden or scree. The rosette is small, two to three inches across, with some stickiness on the dark green obovate leaves. It has an unusual appearance in that the leaves overlap somewhat to give a whorled effect. The short stem carries a rounded umbel with many red flowers. It should be planted where it can have sun for half a day, but so that the roots can go beneath a cool stone. It has been used as a parent for many hybrids, the only one I have grown is Boothman's which has ruby red flowers.

In the Arthritic subsection we have *P. glaucescens* often listed as *P. calycina*. The rosette is short, composed of stiff dark green pointed leaves, the margin slightly incurved. On the two inch stem are the large deep purple flowers. This is found in the Lombard mountains. It comes readily from seed and is long lived. I had it for three years where the path rounded the boulder to separate the paths which is a most conspicuous
The plant site. It was beautiful in rosette but it did not bloom. I complained about this in a round robin letter. Carl Worth answered and told me to fill the soil with crushed egg shells. Then also to pour water over limestone chips and pour this solution around the plants. After this treatment they bloomed on April 28, making 1955 a banner year. Since then I have mulched the tiny plants with egg shells and limestones.

*P. clusiana* is a native of Austria and the Styrian Mountains. It is a plant of open alpine meadows. The foliage is dark green and pointed with upturned white cartilaginous margin. The flowers are large in a rich rose shade with a white eye. A few seedlings came in a pale pink which are not desirable. The soil should be extra rich in humus and although this is a small plant it will make a large mat.

*P. spectabilis* is a distinct and handsome species. It is a prolific bloomer in a clear rose-pink with a white eye. The foliage is bright green and forms a flat rosette with cord-like margin.

*P. wulfeniana* forms dense mats and is a perfect rock plant. It comes from the Eastern Alps and it is said to completely clothe the cliffs there with rosettes of dark green leaves. In spring the plants are covered with immense purple flowers as large as an inch and a half across. Only two or three flowers on an umbel but the size of a single flower will hide a great deal of the rosette.

The subsection Erythrodrosum (red hairs) contains *P. hirsuta* which is abundant in the Alps. It forms rosettes of broad ovate leaves, always blunt, finely dentata and densely hairy; the red hairs being red enough to tinge the leaf rusty. The flowers are born on short stems, very close to the rosette, the umbel thick with many rich rose or red with a white eye. Of all the auricula seed I have germinated only once did I have a white flowered seedling which came from a packet of *P. hirsuta*.

Another red haired primula is *P. pedemontana*, the leave margins heavily fringed. Seed and one plant of this primrose were given to me when I visited the garden of Mrs. A.C.U. Berry in Portland. It is a beautiful small species resembling *P. hirsuta* being smaller in all parts. The five inch stem rises with five to six violet blue flowers.

*P. cotula* bloomed for me in 1953 and then it disappeared. It was a lovely pink and velvet textured. I did not know why I lost it until I received ALPINE and ROCK GARDEN PLANTS written by Will Ingwersen, a gift from James Mitchell. Then I read that it grows in volcanic cliffs which are lime free. It left behind a very beautiful hybrid garden auricula in shell pink as a reminder of having been with me.

The Cyanopsis (blue flowered) subsection has the rare beauty, *P. decorum* which is only found in Bulgaria in marshy alpine meadows. It needs rich humus soil and has been the parent for many blue hybrids. The blue that is the most beautiful is *P. glutinosa* from the southern Alps. The tubular flowers are purple-blue, the rosette composed of narrow, strap-like leaves and very sticky. It does not like too wet a position but does very well in the wall or rock garden.

There is only one member in the subsection Chamaecallis, which means stems on the ground. It is *P. minima* for the wee woody stems, rooting as it grows, terminates in a tiny rosette. The inch wide pink flowers are almost stemless and sharply toothed on the edges. It is an ideal scree plant preferring a granite rock to live against and likes to be mulched with stone chips in gritty soil. It is reported to have a white form which I have never seen. I had it for three years and it formed a mat about a foot across. Then one very wet spring it appeared but only for a short time and it died from too wet a position, I am sure. I do appreciate having had it for that length of time. It has been used as a parent for many lovely hybrids. The most noted may be *P. deschmanii* a cross between *P. minima* and *wuffer-
Primula Production

by John G. Seeley
Cornell University, N.Y.

Primulas (primrose) are worth considering not only for their beauty but also because they are a low-energy requirement crop. Primulas make an excellent item for everyday sales in 4- and 4½-inch pots, and some types such as *P. malacoides* and *obconica* are excellent also as 5- or 6-inch potted plants. There is a wide range of colors giving the primula good sales appeal. Look at the color photos in the sales catalogs.

**SPECIES, VARIETIES AND STRAINS**
The principal types grown in the U.S. ARE *Primula x polyantha*, *P. vulgaris*, and *P. malacoides*.

There is considerable taxonomic confusion in the *Primula* group. The following may help you as you read the various seed catalogs.

1. *Primula malacoides* - The "Fairy Primrose" or "Baby Primrose." Fragrant, compact with base branching, and flowers in successive umbels one above another. Non-irritating foliage. A popular primrose; thus doesn't require staking as does the species.

2. *Primula obconica* - "German Primrose." Umbels of half-dollarsize flowers. A good winter pot plant in 5- and 6-inch pots. Not widely grown because of its reputation of causing a skin rash but some newer strains are reported not to cause this problem. General culture is similar to *P. malacoides*.

3. *Primula vulgaris* (P. acaulis) - the true 'Primrose' and a major crop in Europe. Many colors and shades. Excellent for spring sales. Generally considered hardy in outdoor gardens.

4. *Primula x polyantha* (P. veris elatior) - "Polyanthus," perennial. A hybrid with parentage of *P. veris*, *P. elatior* and *P. vulgaris*. There are many strains. Stem length varies; some with tall stems are used for cut flowers in Europe. Others with shorter stems are excellent for 4-inch pots and as bedding plants in late winter and spring. Good in the garden. *Primula elatior gigantea*, a strain reputed to bloom early with rose and red flowers being useful for Christmas and Valentine's Day.


**PROPAGATION**
Seeds are very small varying from approximately 28,000 to 48,000 seeds per ounce for *P. acaulis* and *P. veris* to about 375,000 for *P. malacoides*. Sow the seed on the surface of a peat-vermiculite or peat-sand mixture that has been watered thoroughly before seed sowing. Do not cover the seed. Some research indicates that light enhances germination but other research (1) indicates that light is not very important.

Keep the medium moist with light misting. OR you can put a sheet of glass or plastic over the flat, but do not put the flats in the sun because of excess heat. It used, remove cover as soon as cotyledons appear.

Keep temperature of the medium 60-68°F. Above 70°, germination is usually poor. A thermometer in the propagating medium is essential especially if using bottom heat and mist. The temperature of the medium is the important temperature as contrasted to that of the thermometer on the wall. High temperatures cause poor germination in the greenhouse in summer. A special seed germination room is excellent.

Seed should begin to germinate in 10 days but we usually figure about 3 weeks for complete germination. Sprinkling the seedlings lightly with finely sifted potting material such as peat-vermiculite helps anchor the sprouting seedlings. Do not allow the germinating medium to become dry. Water deficiency stunts young seedlings.

Another approach is to buy started seedlings or small plants, thus bypassing the seedling step.

**POTTING**
Transplant when 2 to 3 true leaves appear (about 6-8 weeks after sowing). Can go into 2 x 2" cell packs or 2-½ inch pots and later to 4- or 5-inch pots. For later plantings and sales in 3 or 3½ inch pots, plant seedlings directly into the final pot. When potting, keep the crown above the surface of the potting medium to reduce chances of rot.

A loose, light, well-drained medium high in organic matter works well. A 1:1:1 mix (by volume) of peat, lume or sand, peat, and loam with a pH of about 5.5 to 6.5 and low to medium nutrient level is good. A standard peat-lite mix also works well. If regular superphosphate is incorporated in the mix at the rate of 2 pounds per cubic yard, then subsequent fertilization with a fertilizer solution of 150 ppm of nitrogen and 150 ppm of potassium at each watering should keep the plants growing well. Nitrate-nitrogen fertilizer, rather than ammonium-nitrogen, is recommended because of greater availability of nitrogen at the low temperatures. Use 9 ounces of calcium nitrate and 5 ounces of potassium nitrate per 100 gallons. OR consider a 15-0-15 dark weather fertilizer at 9 ounces per 100 gallons; this gives 150 ppm of nitrogen and a little less potassium but will be adequate.

Many recommendations are to run pots on the dry side to avoid excessive leaf growth, but never allow to dry completely.

**TEMPERATURE**
Post (4) showed that cool temperatures favor growth and low temperatures favor flower bud initiation. During summer months, keep plants at 60°F at night or at least as cool as possible to get plant size. For *P. malacoides*, in fall and winter, reduce temperature to 45-50°NT to stimulate flower bud initiation and after 6-8 weeks you can raise temperature to 55° to speed up flowering. Above 55° gives weak flower stems. Research in Germany shows that varieties differ in temperature response (6). In spring 1983, the varieties Snow Cone, Red King, Lavender King, White King and Pink Ice grown in Cornell Greenhouses in Ithaca, New York, flowered in February, from an October 22, 1982 seeding, and grown with minimum NT of 60°F indicating these varieties do not need a low temperature treatment for flower induction and development.

Cultivar of *P. obconica* is similar to *malacoides*.

For *polyanthus* and *P. vulgaris* types, grow at 40-45° until 3-4 flower buds are clearly visible and then force (January to March) at 55°. Forcing usually takes 2-4 weeks after flower buds are visible. One can grow the plants continuously at 40-45 but this lengthens the crop time.

**LIGHT**
Intensity: Plants grow best with a
light shade in summer to lower light intensity and greenhouse temperatures. Hammer (3) recommends light intensity no greater than 3000 footcandles thus requiring some shade most of the year. For P. malacoides and P. obconica, give light shade in summer and early fall and full light in winter. For Primula vulgaris and Primula x polyantha types, give full sunlight except immediately after transplanting.

Daylength: P. malacoides initiates flowers at 50°F under either long or short days, and over the wide range of 41°-77° will initiate under short day conditions (4,5); at 60°, flowers may initiate but later abort, or if they develop, quality will be poor. Therefore, plants are grown cool.

PROBLEMS
Poor growth and chlorotic foliage - usually due to overwatering.
Chlorosis of younger leaves - usually due to lack of available iron due to improper pH or inadequate absorption due to poor root system. Watering with chelated iron such as Sequestrene 330 iron at 2 pounds per 100 gallons can alleviate the problem.
Browning of leaf margins - indicates magnesium or potassium deficiency, or root injury due to overwatering, excess fertilizer, high soluble salts, etc.

SCHEDULES
Primula malacoides - Some catalogs list it as a 6-month crop but sometimes it takes 7 to 8 months depending on season (temperature and light) and size of plant desired. June to September seedings flower in January to April. Several catalogs report that sowings after October 15 will be blind; studies on this problem are in progress.

For an early February crop, sow seed in early July and after transplanting to pots, grow at 60° until late October, then 48-50° to initiate flower buds. In mid to late December, raise temperature to 55°F to finish them off. Or keep the temperature near 50° and they will flower a little later.

Smith (5) in England sowed the variety 'Christmas Rose' in mid-August and 'Fire Globe' in mid-July and both were in bloom for Christmas marketing requiring only 4 and 5 months, respectively, from seed to flower. Plants were grown at 55°F with natural daylength, except for a month from mid-September to mid-October when the temperature was dropped to 50° and plants were given 15 hour nights (short days by blackclothing from 3 pm to 8 pm). Then back to 55° and natural daylength. Would be interesting to see how other varieties react to this type of schedule.

His results showed that if you could be sure of getting the 50° night temperature in September (unlikely in New York State), the short day treatment would not be necessary.

Primula obconica - Some sources say that seed sown from January on provides plants for Christmas and early winter sales. Others report a late May seeding should give 5- or 6-inch pot plants for Christmas. Sow seed at 3 week intervals for successive bloom in spring, but because germination is not good in the heat of summer, use a controlled environment propagation room, or buy started plants produced in a cooler area. An October sowing makes good 4-inch pot plants for spring.

Primula vulgaris (acaulis and polyanthus types): Attractive plants in 4- or 4½-inch pots for everyday sales result from growing at 50-55°F after potting the seedlings; this requires 5 to 6 months from seeding to bloom. Sow seed July-August for February-April sales.

After potting the seedlings (3-7 weeks after sowing) in pots, grow as cool as possible during summer and fall. When the plants have a good rosette of leaves, lower the growing temperature to 40-45°F at night to initiate flower buds. When flower buds are visible, raise temperature to 50-55° and plants should flower in 2 to 4 weeks.

A new Early Christmas series is reported to be ready for Christmas sales from a May to early June sowing.

Goldsberry (2) in Colorado flowered plants of the Jewel strain of the Pacific Giant series and F-1 P. acaulis hybrids in 5 to 5½ months from seed. Seed were sown throughout the fall (September 15 to December 15) in a peat-lite medium and when the second set of true leaves developed, seedlings were transplanted into "608" type cell packs and grown at 60-62°F nights and 60-70°F days, with natural photoperiod and 900 ppm CO₂. About 54 to 80 days later, depending on time of year, plants were shifted to 4-inch azalea pots for finishing. Flower buds were visible in many of the plants when shifted and finished off at 52-54° nights and day temperatures of 60-62° or 60-62° day and night. Cooling kept temperatures from going above 70° in both houses.

Both temperatures produced excellent plants but those finished at the lower temperature were approximately 10 days slower in reaching the salable stage. In this experiment low temperature was not given for flower bud initiation.

Goldsberry suggested spacing of 4 plants per square foot or even pot to pot. As flowering often is not uniform, spacing results as flowering plants are sold.

The various reports and research show that because of the many types and strains in this primrose group and because of differences in climate in various geographic locations, growers should try several types and keep their own records of temperature, weather, and plant response for future reference.

REFERENCES CITED

REFERENCES FOR FURTHER READING
1984 National Show

'Primrose Park' will be the theme for the 1984 National Primrose Show and Sale, to be held April 14 & 15 at the Pavilion Outlet Center in Seattle, Washington. Hours: Saturday 10 - 6 and Sunday 11 - 5.

New approaches for this show include: slide shows on Saturday; demonstrations during afternoon hours on both days; a park scene for the trophy area; photo displays; tearoom featuring a primrose decorated cake; and finally, an effort being made to have all the APS Chapters and members once again working together. While Washington State Chapter will act as coordinator, other chapters are being asked for their input of ideas and to volunteer for specific tasks. In the recent past, single chapters have acted as hosts for the Nat'l Show. And while it has been proven one small group can and has put on a fine show, the main objective here is to have as many involved as possible, making the 1984 Show and all future shows truly NATIONAL.

In order to make this weekend more enjoyable for those outside the Seattle-Tacoma area, local members will be opening their homes for other members to stay during the show. Those arriving by plane will be picked up at the airport and transported to their host member's home. Hospitality Chairman, Candy Strickland, will be doing the coordinating. Any member needing a place to stay and anyone willing to share their home, please contact Candy as soon as possible at 2727 E. 84th, Tacoma, WA 98445.

The Annual Meeting and Banquet will be held after show hours on April 14th at the Pavilion Cafe beginning at 7 p.m. Award presentations, guest of honor introduction, a short business meeting and guest speaker will be featured after a buffet dinner. Banquet Reservations, along with payment ($11.10), must be made before April 10th. Make checks payable to Washington State Primrose Chapter and send to Show Chairman, Irene Buckles, 13732 45th Ave. S., Seattle, WA 98168.

Individuals not belonging to a specific chapter but interested in becoming involved with the show can contact the show chairman. Questions, ideas and suggestions, needed directions or trophy donations should also be directed to the show chairman.

Resource Directory
1984

The primary reason for providing a directory of resources is to serve and for the benefit and knowledge of the members of the American Primrose Society. Basic policies governing the selection for these dates and sources were only they be of direct interest to primula growers.

It is anticipated the directory of resources will be updated and published in the Quarterly each year. The editors hope members of the APS will continue to share their own 'special' resource throughout the year. If, at any time a member comes across an interesting item, source, date, etc., they will right then, drop a note to Harriet Gurney, 42 Water Street, Fairfield, Maine 04937, phone (207) 453-2313. Harriet Gurney is in charge of APS Open Door and could make good use of all information concerning the obtaining and growing of primula.

Dates to Remember for 1984

March 10th to 14th: Massachusetts Horticultural Society, 1984 New England Spring Garden and Flower Show; Bayside Exposition Center, Boston.

March 11th to 18th: Philadelphia Flower Show, Civic Center, Philadelphia.

March 25th: 1:00 PM to 5:00 PM The Rhododendron Species Foundation's Early Blooming Species Walk. On the property of the Weyerhaeuser Corporation Headquarters, Federal Way, Washington.

March 31st – April 1st: Oregon Primrose Society, Primrose Show; Milwaukie Community Center, 10666 S.E. 42nd Ave., Milwaukie, Oregon. Show co-Chairman: Etha Tate & Orval Agee.

April thru May: Sundays 1:00 PM to 5:00 PM, Wednesdays 10:00 AM to 3:00 PM The Rhododendron Species Foundation Weyerhaeuser Corporation Headquarters, Federal Way, Washington.

April 7th and 8th: Tacoma Primrose Society, Primrose Show; Tacoma Mall, Tacoma, Washington. Show Chairman: Flip Fenii.

April 13th to 15th: The APS will participate in the annual Daffodil Festival in Puyallup, Washington. APS members wishing to help should contact Herb Dickson, President APS.

April 14th: Berry Botanic Garden Plant Sale; Miller Hall, Western Forestry Center, Portland, Oregon. Open to members of the Berry Garden 10-12 AM, public 12-4 PM.


May 5th: Doretta Klaber Chapter's Spring Visit. Sponsors: Edith and Bill Collins.

Mid May: Japan Alpine Rock Garden Society Show; Hyogo Prefectural Flower Center, Hasai, Hyogo, Japan. Show Chairman, Dr. K. Onoe.

July 6th to 8th: Hardy Plant Society Study Weekend, Western Forestry Center, Portland Oregon. Registrar; Kathleen Williams, 1205 SW Harbor, Lincoln City, Oregon 97367.

July 14th: American Primrose Society, Annual Picnic; Chehalis Rare Plant Nursery, 2568 Jackson Highway, Chehalis, Washington. All APS members and friends welcome.

September 22nd: Berry Botanic Garden Plant Sale; Miller Hall, Western Forestry Center, Portland, Oregon. Open to members of the Berry Garden 10-12 AM, public 12-4 PM.

Societies

American Primrose, Primula and Auricula Society
President: Herbert Dickson, 2568 Jackson Highway, Chehalis, Washington 98532; phone (206) 748-7627.

Annual picnic second Saturday in July (14 July 1984); board meetings announced by President. Slide collection available for group meetings; contact Ann Lunn, Rte. 5, Box 93, Hillsboro, Oregon 97124. A list of the current APS Show Judges can be obtained from Etha Tate, 10722 SE 40th Ave., Milwaukie, Oregon 97222; phone (503) 654-3361.

Meetings are held on the 3rd Friday of each month, 8:00 PM at the Milwaukee Community Club. The Primrose Show will be on March 31 - April 1, 1984; also at the Milwaukee Community Club, 10666 SE 42nd Ave., Milwaukie, Oregon. The Oregon Primrose Society will be celebrating their 25th year in 1984.

Tacoma Primrose Society
President: Esther (Candy) Strickland, 2722 E. 84th, Tacoma, Washington 98445; phone (206) 351-4449.

Meetings are held on the first Tuesday, 7:45 PM, of each month at the Tenzl Memorial, Pierce County Library, Gravelly Lake Drive at Wildaire, Tacoma, Washington. A plant seed exchange and guest speaker can usually be expected at the meetings. The Washington State Chapter will host the National Primrose Show on April 14 and 15, 1984 at the Pavillion Shopping Center (near the Southcenter Mall), Seattle, Washington.

American Primrose Society - Judges

Judging Schools were conducted last March by Dorothy Dickson for the certification of new judges, and recertification of those judges currently standing, so that all who wished to participate would have the opportunity to do so. It was understood at that time all who passed the examination would be deemed a Student Primrose Judge. After serving as a student member of an APS judging team for three primrose shows or for one primrose show each year for three years, whichever comes first, each student will be eligible to become an APS accredited Primrose Judge.

Any previous APS judge not listed below and who would like to participate in judging should contact Etha Tate, 10722 SE 40th Ave., Milwaukie, Oregon 97222, phone (503) 654-3361.

Accredited Primrose Judges

Orval Agee Rosetta Jones
Herb Dickson Jim Menzies
Rusty Gates Al Rapp
Thelma Genheimer Etha Tate
Cy Happy Ross Willingham
Ruth Huston

Student Primrose Judges

Edna Bailey Ann Lunn
Larry Bailey Jay Lunn
Linda Bailey Viola Purple
Margaret Breck Al Smith
Dona Donahue Anita Stevens
Flip Penili Elizabeth van Sicklen
**Horticulture Societies of Common Interest**

Alpine Garden Club of B.C.:  
c/o Thea Service Foster, 566 Esquimalt Ave., West Vancouver, B.C. V7T 1J4, Canada  

Alpine Garden Society:  
c/o E. M. Upward, Lye End Link, St. Johns, Woking, Surrey, England GU21 1SW  
Quarterly Bulletin, Annual Seed Exchange.

American Rock Garden Society:  
c/o Mr. Norman Singer, Secretary, Norfolk Road, S. Sandisfield, Massachusetts 01255; phone (413) 258-4486.  
Quarterly Bulletin, Seed Exchange, and Slide and Book Library; affiliated regional chapters.

Hardy Plant Society:  
c/o Mr. Marvin Black, 124 N. 181 St., Seattle, Washington 98133; phone (206) 546-4258.  
Newsletter, Annual Study Weekend (July 6-8, 1984) Western Forestry Center, Portland, Oregon.

Japan Alpine Rock Garden Society:  
c/o President, Dr. Kochi Onoe, 142 Motoshio, Himeji, Japan.  
Annual Show, Seed Exchange, Tours to alpine areas of the world.

National Auricula and Primula Society – Midland Section:  
c/o Secretary, 55 Elizabeth Road, Moseley, Birmingham, England B13 8QH.  
Yearbook, Shows March and April (usually last Saturdays).

National Auricula and Primula Society – Northern Section:  
c/o D. G. Hadfield, 146 Queens Road, Cheadle Cheshire SK8 5HY, England  
Yearbook, Shows first Saturdays in April (April 7) and May (May 5).

National Auricula and Primula Society – Southern Section:  
c/o Hon. Secretary Mr. Lawrence E. Wigley, 67 Warnham Court Road, Carshalton Beeches, Surrey, England.  
Yearbook, Shows usually the latter Saturdays of March and April.

Rhododendron Species Foundation:  
P.O. Box 3798, Federal Way, Washington 98003; phone (206) 838-4646 or (206) 927-6960.  
April and May: Sundays 1:00 PM to 5:00 PM and Wednesday 10:00 AM to 5:00 PM for primary blooming season walks. March 25th: 1:00 PM to 5:00 PM Early blooming species walk. October 12th to 14th: 10:00 AM to 5:00 PM Fall Foliage Festival. Large groupings of primroses as companion plants will be displayed.

Scottish Rock Garden Club:  
c/o Mrs. Rosemary Law, Kippielaw Farm, Haddington, East Lothian 4PH, Scotland.  
Bi-annual Journal, Seed List, Publications.

Vancouver Island Rock and Alpine Garden Society:  
c/o Secretary, P. O. Box 6507, Station C, Victoria, B.C. V8P 5M4 Canada.  
Show in April usually the Friday and Saturday following Easter. Meeting 4th Tuesday of month for lectures, Parlour Shows, plant sales, etc.

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**Seeds**

Societies  
Alpine Garden Club of British Columbia, Seed Director: Vera Peck, 4875 Skyline Boulevard, North Vancouver, B.C. V7R 3J2  
Alpine Garden Society, Seed Distribution Manager: H. Lill, 17 Newton Avenue, Newnham, Wakefield, WF1 2PX England  
American Primrose Society, Chairman Seed Exchange: Richard L. Critz, 1236 Wendover Ave., Rosemont, pa 19010  
American Rock Garden Society, Director of Seed Exchange: Mrs. D. Bruce Whitemore, 90 Ridgecrest Drive, Westfield, MA 01085  
Scottish Rock Garden Club, Angus Group Seed Exchange Honorary Manager: Miss E. M. Halley, 16 Abercrombie Street, Barnhill, Dundee DD5 2NX Scotland

Commercial and other sources:  
Aberchaldre Alpine Gardens, Gorthleck, Inverness-shire, U.K.

Alpine Research, 630 S.E. Rene, Gresham, Oregon 97030

Barnhaven, Brigsteer, Kendal, Cumbria, LA8 8AU England

Burpee, W. Atlee Seed Co., 300 Park Avenue, Warrington, PA 18991

Chambers, John, 15 Westleigh Road, Barton Seagrave, Kettering, Northants NN15 5AJ, U.K.

Chiltern Seeds, Bortree Stile, Ulverston, Cumbria LA12 7PB England

Drake, Jack, (Inshriach Alpine Plant Nursery), Aviemore, Inverness-shire, Scotland PH22 1QS

Douglas, Mr. Gordon, 67 Church Road, Great Bookham, Surrey, KT23 3EG England

Far North Gardens, 16785 Harrison, Livonia, Michigan 48154

Goodwin, L.S.A. and Son, Bagdad Sth 7407, Tasmania, Australia

Ghose, G. & Co., Townend, Darjeeling, India

Green, Jonathan & Sons, Inc., Box 9, Farmingdale, N.J. 07727

Howell, Major V. F., Fire Thorn, 6 Oxsowt Way, Cobham, Surrey, KT11 2RT England

Jelitto, Klaus R., Horandstieg 28, D 2000 Hamburg 56, Germany

Kohli, P & Co., Park Road, Srinagar, Kashmir, India 190009

Kroner, Mrs. A., rue des Vernes, 16 CH 1217 Meyrin, Switzerland

George W. Park Seed Co., Greenwood, South Carolina 29647

Seeds by Rosetta, 6214 So. 287th., Kent, Washington 98032

Spring Hill Farm, P. O. Box 42, Gig Harbor, Washington 98335

Stokes Seed Inc., 737 Main Street, Box 548, Buffalo, New York 14240

Thompson & Morgan Inc., P. O. Box 100, Farmingdale, New Jersey 07727

W. F. Unwin Limited, Seedsmen Histon, Cambridge, England

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Plants, Commercial Growers:  
Before visiting any of the sources for plants, the editor's committee strongly recommends the person(s) make prior appointments.

Alpenflora Gardens, 17985 - 40th Ave., Surrey (Cloverdale), B.C. V3S 4N8

Alpenglow Gardens, 13328 King George Hwy., North Surrey, B.C. Canada

Bailey's (mail orders only), 209 Dayton Street, No. 106, Edmonds, Washington 98020

Bartos Gardens, 6214 So. 287th., Kent, Washington 98032; phone (206) 852-0330

Alpenglow Gardens, 13328 King George Hwy., North Surrey, B.C. Canada

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Primula Names and Prefixes

by William G. Holt

Girvan, Ayrshire, Scotland

Why do we name Primulas and use prefixes? The reason is obvious you will say, but think further. Raisers of plants should select only those to be named that they feel worthy of distribution, are different and of superior quality. It should be a customer's guarantee a particular superior quality. It should be a

Then lastly prefixes and names will identify cultivars for all future generations of primrose lovers.

The left hand number identifies the variety. The letters in the right column identifies the donors of the seed and the number to the right of the donor key in parenthesis ( ) is the number of seed per packet.

Packet orders are $5.00. No postage is charged, but inclusion of a stamped (USA), self-addressed envelope will be appreciated. Please remit by personal check, bank draft, or money order.

Overseas members must use international money order or bank draft on US funds. Make checks payable to: The American Primrose Society.

There will be no refunds of money and substitutes of desired seeds are encouraged to be indicated with orders.

col = collected
dk = dark
dbl = double
HP = hand pollinated
hyb = hybrid
Nfld = Newfoundland
NW = northwest
ssp = subspecies

AURICULA

1. auricula B2(8)
2. auricula alpina U1(6)
3. auricula, red X1(5)
4. auricula, mixed species, Garden, Show G(10)
5. daonensis (oenensis) U1-H2(5)
6. glaucescens T1(6)
7. glaucescens ssp calycinum U1(5)
8. glutinosa M1-U1-H2(20)

9. integrifolia M1(8)
10. pedemontana M1(8)
11. x pubescens (15)
12. rubra (hirsuta) T1-U1-H2(8)
13. spectabilis U1-K2(5)
14. villosa B2-K2(4)
15. viscosa (latifolia) M1-K2(8)
16. doubles-R W Balcom Strain K(5)
17. Garden, blue shades T-I(1)
18. Garden, dark colors B(20)
19. Garden, hair colors B(30)
20. Garden, light colors B(30)
21. Garden, white T(5)
22. Garden, Edinburgh Strain, mixed colors G(5)
23. Garden, mixed colors (10)
24. Show Alpine, light center V(1)
25. Show Alpine, dark blue HP P(5)
26. Show Alpine, pale blue HP P(5)
27. Show Alpine, gold-flame, etc. HP K-P(5)
28. Show Alpine, bright pink HP K-P(4)
29. Show Alpine, pale pink HP P(5)
30. Show Alpine, purple HP P(5)
31. Show Alpine, dark red, HP P(6)
32. Show Edged, green-black ground HP P-V1(5)
33. Show Edged, green-red ground HP P(5)
34. Show Edged, gray-black ground HP P(5)
35. Show Edged, gray-yellow ground HP P(5)
36. Show Edged, white-black ground HP P(5)
37. Show Self, black HP P(4)
38. Show Self, blue HP P-V1(5)
39. Show Self, old gold HP P(5)
40. Show Self, pink HP P(5)
41. Show Self, red HP P(5)
42. Show Self, yellow HP P(5)
43. Shows mixed G-T1-B2(10)


Open to all members in good standing.

The American Primrose Society
Seed Exchange

Brenda Hyatt, 1 Toddington Crescent
Bluebell Hill, near Chatham, Kent, England
Chehalis Rare Plant Nursery, 2568 Jackson Hwy., Chehalis, Washington 98532; phone (206) 748-7627
Cricklewood Nursery, 11907 Nevers Road, Snohomish, Washington 98290; phone (206) 568-2829
Dalilea Nurseries Limited, The Old Poor's House Dalilea by Acharacle, Argyll PH36 4JX, Scotland
Far North Gardens, 16785 Harrison, Livonia, Michigan 48134; Phone (313) 422-0747
Frank Shipston, 11 Harvey Close, Allesley, Coventry CV3 9FU, England
Grand Ridge Nursery, 27801 S.E. High Point Way, Issaquah, Washington 98027; phone (206) 392-1896; 222-7226
Darlene Heller (Wayside), 1711 B County Line Rd., Stanwood, Washington 98292; phone (206) 445-3732
Lamb Nurseries, E. 101 Sharp, Spokane, Washington 99202; phone (509) 328-7956
Mori, Kazuo Alpines, Trinity Garden, 5-8, Matsushita, Nishinomiya, Hyogo, Japan, P.C. 662

Nature's Garden
Route 1, Box 488, Beaverton, Oregon 97007; (mail orders)
Oliver Nurseries, Inc., 1159 Bronson Road, Fairfield, Connecticut 06430; phone (203) 259-5609
The Plant Farm, 11811 Northeast 73rd, Kirkland, Washington 98033; phone (206) 822-1124
Primrose Acres, 14015 - 84th Avenue East, Bothell, Washington 98011; (206) 823-8904
Primrose Lane Nursery, 13631 - 196th Cummings Road, Medford, Oregon 97501, (mail orders); phone (503) 772-6846
Primrose Nelorie, 2825 Daystar, Litchfield - Hallowell Road, Ongania 19010.
RFS 2, Litchfield, Main 04350; phone (207) 342-5796
RFS 2, Litchfield, Main 04350, (mail orders);

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There will be no refunds of money and substitutes of desired seeds are encouraged to be indicated with orders.

col = collected
dk = dark
dbl = double
HP = hand pollinated
hyb = hybrid
Nfld = Newfoundland
NW = northwest
ssp = subspecies

AURICULA

1. auricula B2(8)
2. auricula alpina U1(6)
3. auricula, red X1(5)
4. auricula, mixed species, Garden, Show G(10)
5. daonensis (oenensis) U1-H2(5)
6. glaucescens T1(6)
7. glaucescens ssp calycinum U1(5)
8. glutinosa M1-U1-H2(20)

9. integrifolia M1(8)
10. pedemontana M1(8)
11. x pubescens (15)
12. rubra (hirsuta) T1-U1-H2(8)
13. spectabilis U1-K2(5)
14. villosa B2-K2(4)
15. viscosa (latifolia) M1-K2(8)
16. doubles-R W Balcom Strain K(5)
17. Garden, blue shades T-I(1)
18. Garden, dark colors B(20)
19. Garden, hair colors B(30)
20. Garden, light colors B(30)
21. Garden, white T(5)
22. Garden, Edinburgh Strain, mixed colors G(5)
23. Garden, mixed colors (10)
24. Show Alpine, light center V(1)
25. Show Alpine, dark blue HP P(5)
26. Show Alpine, pale blue HP P(5)
27. Show Alpine, gold-flame, etc. HP K-P(5)
28. Show Alpine, bright pink HP K-P(4)
29. Show Alpine, pale pink HP P(5)
30. Show Alpine, purple HP P(5)
31. Show Alpine, dark red, HP P(6)
32. Show Edged, green-black ground HP P-V1(5)
33. Show Edged, green-red ground HP P(5)
34. Show Edged, gray-black ground HP P(5)
35. Show Edged, gray-yellow ground HP P(5)
36. Show Edged, white-black ground HP P(5)
37. Show Self, black HP P(4)
38. Show Self, blue HP P-V1(5)
39. Show Self, old gold HP P(5)
40. Show Self, pink HP P(5)
41. Show Self, red HP P(5)
42. Show Self, yellow HP P(5)
43. Shows mixed G-T1-B2(10)
... Both my wife Pat and myself are Yorkshire born and bred and have lived in and around Doncaster all our lives, we moved to Haxey just five years ago. It is highly agricultural with the emphasis on cereal and root crops but very little in the way of livestock.

With regard to my own particular interest in Primrose, Primula and Auricula I must confess to a great love for the old named varieties of Primroses, particularly those of P. x juliana origin as listed by Mr. J. W. Martin on page 27 of the Summer Quarterly and also makes very interesting reading. As you might imagine these old varieties are very difficult to come by as indeed are many items of a bye gone era, most growers will only do swaps. As I have only a few varieties I have to buy those that I want. Mr. Martin does sell a few varieties and I also have one or two other connections but it is expensive but I enjoy them so much that it is hard if not almost impossible to resist when I find something to add to my collection. The problem is that I lost practically every variety that I had in the severe winter we encountered and consequently I have had to start almost from scratch again. The plants that I lost were all growing in pots and as I do not have a greenhouse I’m afraid they did not survive. The one great favourite of mine Gary yard Guinevere was growing in the garden and came through unharmed I'm happy to say. I have tried breeding with her but I'm afraid she has resisted all her suitors so far and is still as viruous today as she was when I first obtained her. Still I'll keep trying and who knows one day she may set seed for me. I think the direct crosses with P. juliana are the most delightful and of course this fact has now been recognised by many of our large commercial seed houses who are introducing their own particular strain of Primula x julia. Of course the most famous over here must be Barnhaven with their new Juliana. A wonderful strain, neat compact plants in truly magnificent range of colours. I must confess that I am particularly interested in the Double Primroses and obviously found the article by Rosetta Jones in the Summer Quarterly of great interest. I have the problem now has his own particular strain and is constantly working to improve it. Needless to say Class 14, P. aurea is very popular and consequently I have had to start almost from scratch again. The plants that I lost were all growing in pots and as I do not have a greenhouse I'm afraid they did not survive. The one I must get around to ordering some seed. My other great love m Primulas are the Section Petiolares of which I have about six or seven varieties so far. They are growing in a raised bed (artificial shading) in pure leaf mould and were in deep shade under a large tree until the September gales damaged it so badly that I had to take it down completely and will now have to provide artificial shade next year. I have managed to keep the pests and diseases at bay to a large extent and in winter I cover with glass to protect the early blooms. I have not lost any plants so far but they do not seem to be over flowing with the health and vigour that I would wish for so I am going to have to consult the experts to find out where my cultivation is at fault. They are so delightful I do want to make a success of growing them.

... Northern Section Primula and Annual Show ... all sections (of the schedule) are generally well supported but Class 13, P. allionii form has a very generous following and attracts many entries. There are now several named varieties and competition is very keen. There is also many of Margarita Hybrids or forms shown in particular at the April Show held at Bradford. Not surprisingly here are also lots of entries in Classes 28 and 29; Gold Laced Polyanthus, Red or Black Ground. Here Hubert Calvert usually does very well and will now have to provide artificial shade next year. I have managed to keep the pests and diseases at bay to a large extent and in winter I cover with glass to protect the early blooms. I have not lost any plants so far but they do not seem to be over flowing with the health and vigour that I would wish for so I am going to have to consult the experts to find out where my cultivation is at fault. They are so delightful I do want to make a success of growing them.

... Autumn is surely with us and recently we have been enjoying some truly wonderful days, particularly warm for this time of year. The leaves are turning gold and orange, red and brown and beginning to fall, it is a most enjoyable time of year but the nights are short and little can be done in an evening.

Malcolm Birkett, “Brecklands”, Grasielound Fields, Haxey, Nr. Doncaster, South Yorkshire DN9 2LN, England
We too had a hot spell in the main primrose season after a long wet and windy winter. Our July and August to recent date (August 17, 1983) have been very warm and dry. Together with the normal maintenance of the collection of primroses we have been very busy cleaning beds for outdoor plantings in what was virtually virgin soil. The plants look very well considering the very hot weather. About five thousand double seedlings which were sown on Valentine’s Day have commenced to bloom and are the best quality I have had. The next batch of seeds will be set this week! We also, thanks mainly to seeds from the USA, are building up a very nice collection of Hosta-in-Hose.

August 18. We have had a night of gentle rain, the stream running through Trolldden Cottage lands, which had deteriorated to a mere trickle, has risen a little. Everything is wet and fresh and looking rather old, pale and invalid. I visited her only a few minutes, and we reminisced about the time we spent when Cecil was alive. She told me she was going to the hospital the following day, but clearly she did not expect to live long.

I photographed the few plants that remained in the garden. Only a few of his primulas still grew there.

Cy (Happy) says that Dr. Molly Sanderson, 76 Charlotte St., Ballymoney, Co. Antrim, North Ireland still grows some of Cecil Monson’s plants. Dr. Sanderson (a charming woman and fine grower) will be one of the featured speakers at the Rock Garden study weekend at the end of November in Port Townsend. Perhaps some of the primulas growers will be able to talk with her then.

Rita Happy, 11617 Gravelly Lake Drive S.W., Tacoma, Washington 98499

What an absolutely engrossing issue of the Quarterly (Summer 1983) the gang put out this time! The letters were like mini-articles and gave such an overview of members gardens and the conditions under which they grow their primulas. There’s a tendency to think of the membership as a homogenous mass, rather than considering the fascinating individuals creating it. The liveliness of the descriptions of their gardens by the writers points out the breadth of the differences and gives me more of an APS club feeling than ever before.

I couldn’t resist writing an item in the monthly bulletin of the Alpine Garden Club of BC about the win in the Washington State Show with Juliana ’Butterball’ because of the AGC / APS connection through Susan Watson. She was a founding member of our Club (age of BC) in 1955 after she had been APS editor and compiler of the APS Dictionary of Primulas—still the most consulted book on the genus. Susan bred P. juliae x Butterball which is the most colourful and floriferous of all the P. juliae hybrids in my garden. ’Butterball’ has not been entered in our AGC Pot Shows but you have inspired me to plan on grooming a plant for the 1984 Show season.

’Butterball’ is especially rewarding because of its rapid increase in crowns; a generous swath can be developed in just two or three years. In a small woody corner of our garden, near a pool, there is an area that is slightly raised by use of logs. A ribbon of pinky-lilac Primula darialica edges the bed. This is another free-flowering plant that can be divided annually to create showy drifts. Double primrose, ’Quaker’s Bonnet’, is matching lilac, is behind P. darialica. Then come the taller ’Butterball’ plants as perfect compliment to them with golden-centred yellow blossoms. Erythronium tuolumnense joins the grouping to provide contrasting foliage form and colour.

It is hard to believe that when I visited Ireland this spring, I was anxious to stop at Dromahair, where Cy and I had spent a peaceful time with Cecil Monson and his wife, Jean. (Cecil died a short time after our visit—almost 10 years ago.)

Dromahair is a small village near Sligo on the west side of Ireland. I drove to the street, but could not find where we had been, the Monson bungalow. A neighbor on the street jogged my memory, but she warned, “Lady Jean is gravely ill with cancer. She has been in the hospital and has been home for only a few days”.

To my sorrow, I found the neighbor’s warning to be quite true. The vibrant, active Jean Monson whom we had known became a thin, pale invalid. I visited her only a few minutes, and we reminisced about the time we spent when Cecil was alive. She told me she was going to the hospital the following day, but clearly she did not expect to live long.

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Rita Happy, 11617 Gravelly Lake Drive S.W., Tacoma, Washington 98499
Enclosed are some pics taken in our woodland garden last spring—The picture of the velvety red with the tiny yellow eye are plants I got from Ruth Huston in 1982. I think they're just stunning...

It's been a fun summer—hard to believe it's on its way out. The Rock Garden convention at Cornell was exciting—beautiful country side I've not seen before—a chance to meet people with similar interests and just the chance to get away.

Didn't get around to dividing primulas this season—a normal state of affairs here. Filled some holes in the garden instead with last winters seedlings. Had bumper crops of seedlings this year, most of which are still in 6 packs. Think I'll bring some of them into the greenhouse later this fall, as some have grown tremendously—have lined many of them out, gave some to friends and still have a surplus. The cold frames are rapidly filling up, so flats of seedlings and plants in 2½” pots are strewn everywhere—will have to make some sense of them soon, as am sure winter will be upon us before we know it. Have been blessed with a delightful last few weeks—warm and sunny—more so than we could expect (Nov. 2nd, 1983).

Steven John Kelley, 2325 South Watertown Road, Long Lake, Minnesota 55356
American Primrose Society

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Dues of $10 a year are payable Nov. 15. Membership includes four issues annually of the Quarterly, cultural chart and seed exchange privileges. Sustaining member $50. Life membership, $200; garden club affiliated societies, $10 a year; library and horticultural societies, $10 a year; second member in family, $1 a year. Overseas members, $10 a year; please send by international money order. Send dues to the treasurer.

Publications

Back issues of the Quarterly are available. Order from the secretary. Manuscripts for publication in the Quarterly are solicited from members and other gardening experts, although there is no payment. Please send articles and photographs to the editor's committee at 1570 - 9th Ave. N., Edmonds, WA 98020. Advertising rates per issue: full page $60; half page $30; quarter page $15; eighth page and minimum $10. Submit advertising to the editor.

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