OFFICERS—AMERICAN PRIMROSE SOCIETY
President—Cyrus Happy III 4 Country Club Drive, S.W., Tacoma 99, Washington
Vice-President—Herbert H. Dickson 13447 56 Avenue South, Seattle 88, Washington
Rec-See's—Mrs. John Stepman 3616 N.E. Bellevue-Redmond Rd., Kirkland, Wash.
Treasurer—Mrs. Orval Agee 11112 S.E. Wood Avenue, Milwaukie 22, Oregon
Corresponding Secretary—Mrs. P. B. Charles 875 84th N.E., Bellevue, Washington

REGIONAL VICE-PRESIDENTS
Mrs. Walter Roe—Pres. Clark County Primrose Soc.—Rt. 5, Box 562, Vancouver, Wash.
Mr. Robert Saxe 166 Eleventh Ave., San Francisco 18, California
Mr. Robert W. Fleming 3100 Leighton Avenue, Lincoln, Nebraska
Mr. Douglas W. Duncan 521 E. Windsor Rd., North Vancouver, B. C., Canada
Mr. Chester K. Strong—Box 126, Loveland, Colorado
Mr. Robert Luscher Thedford P.O., Ontario, Canada
Mrs. Richard Wetzel 1001 Reading Blvd., Wyomissing, Pennsylvania

DIRECTORS
Mrs. Lew Levy (Florence), Gresham, Ore. Mr. Ross Willingham, Seattle, Wash.
Mr. R. M. Bellis, Tolowa Park, Ore. Mr. Wesley B. Boins, Tacoma, Wash.
Mr. Robert Putnam—Kirkland, Wash. Mr. Ralph Balcom—Seattle, Wash.
Mr. Charles E. Gilman, Redmond, Wash. Editor, ex officio

QUARTERLY
Florence Levy Editor Emeritus
18680 Conrad Olsen Road, Redmond, Washington

Regional Editors—
Mr. Roland E. Cooper "Blythwood" 40, Grovenor Rd., Westcliffe, Essex, Eng.
Mr. Leo Jelito (144) Stuttgart-N., Hoferstrasse 2, Stuttgart, Germany
Mr. Aymon Correvon "Floiret" Chene-Bourg, Geneva, Switzerland
Miss Alida Livingston Remson's Lane, Oyster Bay, Long Island, N. Y.
Mrs. Doretta Klaber Rt. 1, Quakertown, Pennsylvania
Prof. Walter C. Blasdale 2541 College Ave., Berkeley 4, California
Mr. Elmer Baldwin 400 Tecumseh Road, Syracuse 10, New York
Mr. David G. F. Barton R.R. 2, Royal Oak, B. C., Canada
Mrs. Eugene C. Conboy 3250 S.E. Marine Dr., S. Burnaby, B. C., Canada
Mrs. Mary L. Zech 8825 N.W. Bailey, Portland 9, Oregon
Miss Loreta D. Dehl 1023 E. Dehl, Mt. Angel, Oregon

U. S. Research Editor—Mr. Wilbur Graves Rt. 1, Box 189, Res, Washington

Editor in Charge of Translations—Mr. Robert Luscher Thedford P.O., Ontario, Canada

British Research Editor—Captain C. Hawkes "Brown Roof," Stapely, Nantwich, England

Seed Exchange Mr. Chester K. Strong—Box 126, Loveland, Colorado

All material for the Quarterly should be sent direct to the Editor's Office, 18680 Conrad Olsen Road, Redmond, Washington

British Subscription price (including membership): 1 pound per year

British Representative and Treasurer—Mr. Norman Lawfield 345 South Lane, New Malden, Surrey, England

Subscription price (including membership): £3.50 per year, £10.00 for three years paid in advance. Old Quarleslies available at £1.00 per copy or £3.50 per volume. Treasurer, Mrs. Orval Agee 11112 S. E. Wood Avenue, Milwaukie 22, Oregon. (Free planting guide with new memberships.)
Greetings to each and every one of you. We are dedicating this new year to a bigger and better American Primrose Society and it is gratifying to report that the membership is growing faster than at any time during the past two years. This is a most important factor in the success of our Society and if each member will make an effort to interest just one new person in Primulas and the Society, our success will be assured.

The Lewis County Primrose Society will be the host for the National Show at the Lewis County Fairgrounds between Centralia and Chehalis this year. Each one of this group is an enthusiastic working show committee member, and special effort should be made by all of us to make this show a success. The excellent highway and central location of Chehalis should provide a record attendance.

May I wish all of my friends at home and abroad the best of good fortune for the new year and good gardening to all.

Cy Happy

The President's Message

Greetings to each and every one of you.

We are dedicating this new year to a bigger and better American Primrose Society and it is gratifying to report that the membership is growing faster than at any time during the past two years. This is a most important factor in the success of our Society and if each member will make an effort to interest just one new person in Primulas and the Society, our success will be assured.

The Lewis County Primrose Society will be the host for the National Show at the Lewis County Fairgrounds between Centralia and Chehalis this year. Each one of this group is an enthusiastic working show committee member, and special effort should be made by all of us to make this show a success. The excellent highway and central location of Chehalis should provide a record attendance.

May I wish all of my friends at home and abroad the best of good fortune for the new year and good gardening to all.

Cy Happy

1958 National Officers

Herbert H. Dickson  
Vice-President

Anne Siepman  
Recording Secretary

Ivane Agee  
Treasurer

Lucile Charles  
Corresponding Sec.

It gives the editor great satisfaction to announce the same panel of officers that served in 1957 will be on the job again for at least one more year.

Mr. Ralph Balcom and Mr. Robert Putnam are the two new Directors. These two men are outstanding floriculturists and the Society should be complimented for having them on the Board.

Officers for 1958 - Affiliated Clubs and Societies

LEWIS COUNTY PRIMROSE SOCIETY
Chehalis, Washington
President  Mrs. Henry Lucas
Vice President  Mrs. William L. Hagerman
Secretary-Treasurer  Mrs. Louis Pemerlel, Sr.
Show Chairman  Mrs. W. L. Hagerman
Show Dates  April 26-27

EAST SIDE GARDEN CLUB
Kirkland, Washington
President  Mrs. Clarence Bartholomew
Vice President  Mrs. E. T. Watt
Recording Secretary  Mrs. W. B. Elgin
Corresponding Secretary  Mrs. R. C. Putnam
Treasurer  Mrs. R. E. Hammond
Show Chairman  Mrs. R. C. Putnam
Show Dates  April 18-19-20

WASHINGTON STATE PRIMROSE SOCIETY
Seattle, Washington
President  Mrs. John Siepman
Vice President  James Stuart McLees
Recording Secretary  Rosetta Jones
Treasurer  Mrs. William Dines
Corresponding Secretary  Ruth E. Smith
Trustee  Edward Cole, John Haddock,
Mrs. P. B. Charles, Mrs. O. A. Olson, John Shuman, Herbert Dickson.
Show Date  April 12-13

TACOMA PRIMROSE SOCIETY
Tacoma, Washington
President  Mrs. Karl Stredicke
Vice President  Wesley Bottoms
Secretary  Mrs. Mickey Cannon
Treasurer  Mrs. R. A. Guilmette
Show Dates  April 12-13

CLARK COUNTY PRIMROSE SOCIETY
Vancouver, Washington
President  Mrs. Walter Roe
Vice President  Mrs. Claude Ramsden
Secretary-Treasurer  Mrs. Seth Barnett
Show Chairman  Mrs. Lucile Tipple
Show Chairman Asst  Mrs. Harriet Wallace

FRIDAY HARBOR PRIMROSE CLUB
Friday Harbor, Washington
President  Mrs. R. F. Hannah
Secretary  Mrs. Albert Jensen
Treasurer  Mrs. T. J. Drummond
Show Chairman  Mrs. R. F. Hannah

MT. ANGELO PRIMROSE SOCIETY
Mt. Angel, Oregon
President  Mrs. Orval Williams
Vice President  Mrs. Victor Hoffer
Secretary  Mrs. Marc Wampach
Show Chairman  Mrs. Roy Palmer
Show Date  April 13
Plant Hunter In Alaska

Presenting for the approbation of the American Primrose Society—
Miss Isobel Wylie Hutchison

BY ROLAND E. COOPER

Miss Isobel Wylie Hutchison, L.L.D., of Scottish descent, plant-hunter, lecturer, and author of lyrics, one novel, and four books of travel, who has contributed material mentioned in the "Genus Primula" from the Bering Sea region (Transaction of the Royal Society of Edinburgh) of particular interest to the Society.

Miss Hutchison visited Greenland as a plant-hunter on three occasions, first in 1927 to the East and South coasts and again in 1929-30 and in 1935 to the Umanak region and Jakobshavn on the west coast, collecting specimens of plants for the British Museum. Her first travel book "On Greenland's Closed Shore" was published by Blackwood of Edinburgh in 1930.

In 1933-34 she visited Arctic Alaska and travelled from Nome along the north coast by boat and dog-sled to the Mackenzie delta in Canada. Here, too, around Nome she collected plants for the British Museum, including species of Primula, P. eximia, P. borealis, P. sibirica Jacq. (a pale pink variety not very frequent around Nome) and P. stricta (Hornem)."

The account of her journeys in Alaska and in the Aleutian Islands, which she visited as a plant-hunter for the British Museum in 1936, by help of a United States Coastguard vessel, is contained in three travel books, published by Blackie & Son of Glasgow:


Mr. Cooper with Oriental Vase

Mr. Cooper writes: "The article I am holding in the photograph is an oriental vase based on the shape of a square bamboo (not the ordinary round sectioned kind) in sections of which the Chinese kept their divining twigs in little bundles which are represented on the vase in groups of eight, either whole twigs or half twigs. No more than eight such combinations can be made. This group of divination symbols the Chinese call 'Pa Kwan.'"

(Courtesy of the author)

She contributed some articles on plant hunting to the Journal of the Royal Horticultural Society, the New Flora and Silva, and other horticultural journals. She is also a contributor on travels in various other lands (including the British Isles) to the American National Geographic Magazine.

Among her ancestors the surname "Primrose" occurs, which is an interesting Scottish surname and is found in the small Scottish county of Clackmannan and in Fife, on the Firth of Forth around Dunfermline (birthplace of Andrew Carnegie) near the Forth Bridge. Scottish records show

that there were lands of the name of Primrose (the name of their erstwhile owner?) which belonged to the Abbot and monks of the Abbey of Dunfermline from about A.D. 1150. The name of Primrose appears in J. Macbeth Forbes "History of the Primrose-Rosebery family, 1500-1900," while the Scots peareage gives the Earl of Rosebery's descent.

From Miss Hutchison's "North To the Rime-Binged Sun":

"Seated upon the summit of Anvil mountain, which rises from the tundra three or four miles behind Nome to a height of over 1000 feet, one sees all around to north, east, and west, the snow-invested mountains of the Seward peninsula, topped by the pristine cone of Mount Osborne, a giant of 6000 feet, peering over the saw-toothed northern ridge . . .

"In early July I gathered primulas, the delicate little Primula stricta, the taller pale-pink P. sibirica — which can be found rarely in the marshes by Snake river — and the sturdier purple variety (P. eximia) dusted with her white powder and smelling deliciously, like the 'dusty millers' of home gardens . . .

"Sheets of Epilobium lattifolium L. with its beautifully contrasting sea-green anthers cover the dry slopes of creek-beds and hill-sides in July and an occasional snow-white albino form appears . . . By the Snake River where the third and rarest of Nome's primulas — the pale pink P. sibirica Jacq. — is occasionally discovered. P. stricta Hornem is Nome's most common primula . . . At Martin Point in the far north of Alaska I found awaiting me the last and most interesting—Alaska's fourth — Primula borealis Duby which the trader with whom I had boarded there had gathered (in a little tin) with roots and water before his departure for Barrow, 400 miles distant, in July and which was still flourishing in the deserted cabin when we reached it in mid-September! Little did Mr. Masik (an ex-member of Doctor Stefansson's Canadian Arctic Expedition) think, when he gathered it to decorate his table, that it was destined to end in the Kew herbarium!"

from her "The Aleutian Islands":

"Behind the village (Unalaska) a small river twists round under steep green hills to the bay, spreading out some distance back of the village into
a lakelet where in summer the natives and Coast Guard sailors fish for trout and salmon. Beyond the lake the stream continues through a mountainous valley, finding at last its source in the snows and glaciers of the higher tops. To right and left of the valley rise ridges between two and three thousand feet high. Their volcanic slopes are green and fertile, and are clothed to the thousand-foot level with soft mosses and lichen into which the foot sinks as into a carpet of deepest pile. Out of this rises a tall and luxuriant vegetation, composed of species of lupin, arnica, erigeron, achillea, geranium, elymus, aconite, violet, anemone, and other species too numerous to mention here, though the lovely Geranium erianthum might be singled out, for it covers the July hillsides with sheets of bluish purple, much resembling our own meadow-cranebills.

"Higher up, as this tall vegetation is left somewhat laboriously behind..." he comes upon alpine valleys in which the brown-spotted Lady's Slipper (Cypripedium guttatum) with her bright twin leaves, feet it gaily amidst sheets of the lovely rose-red Rhododendron kantschatticum (one of the finest species in the Aleutians).

"Higher still, and the cream-belled Phylloloece aleutica, a heath-like species with rather large handsome flowers, grows more or less sparingly in the lothier ridges, where, in bare volcanic soil, may be seen also the little bright-pink Primula cuneifolia, the blue Jacob's-gottis (named Gmelina by Alaska's first botanist Steller), and the rarer Potentilla Rossii, a plant with rather large gold flowers and dark-green shining leaves.

On my first morning afield, which took me far up this valley and through a gorge down which a mountain torrent poured, barring at last all further access, I came (for the first and last time in the Aleutians) on some plants of the delicious dust-powered Primula eximia, which Dr. Hulten's assistant, Mr. George Eyerdamm, describes as "quite rare" in Unalaska. Though I did not find it again in the islands, it is an early-flowering species, and a visitor in May or June might come on it more frequently...."

"There are no harbours at either of the two Prinolof islands, and navigation is dangerous, for unless the wind is directly offshore, there is no good anchorage and fog is constantly prevalent. The islands are the southern limit of ice in the Bering Sea, and detached ice may be met with in this region from February to May.

"The coast of St. George Island, save for a few miles, consists of precipitous cliffs... St. George has not been as well explored botanically as its better-known neighbor St. Paul, and I much regretted that I had to leave its friendly shores with only a glance at its treasures.

"Hurriedly I gathered the white arctic marguerite (Chrysanthemum arcticum), much more common here... than on St. Paul, where I only saw it in one spot; the pretty blue Jacob's Ladder (Polemonium acutiflorum), frequent around Nome; and the seed-pods of the now faded Primula exigia. Another species of this fine flower (called, after its finder James M. Macoun, Primula Macounii) is said to flourish on St. George. This botanist explored the islands in 1891-2 and again from 1896-7, and made a collection of 182 ranunculaceae and vascular cryptogams, the list of which was afterwards shown me at St. Paul by Mr. Christoffers. In the same volume it is stated that Mr. Charles Bryant made a small collection in 1879, now in the United States National Herbarium at Washington and the Gray Herbarium; and in 1890 Mr. William Palmer collected about 100 species.

"Anchithika Island is rather different in character from the western Aleutians, being low and undulating. As the Chelan remained at anchor here for a couple of days I was able to explore it to some extent. The yellowish Cladonia Alpestris, one of the reindeer mosses, formed the groundwork of the moors, into which the foot crashed as if walking on snow. It was mixed with empetrum and calamagrostis, and from it protruded such late-flowering plants as the purple aster, yellow arnica, campanula and Platanthera hyperborea. I also gathered ripe seeds here of the pretty Primula cuneifolia, which still showed a few rose-red blossoms, as well as of the aster and Geranium erianthum."

"As a final point of interest to Americans through Miss Hutchison, I am permitted to state that her sister wrote a novel and travel book on North America under the pen-name of Hilda S. Primrose (her baptismal name).

Thus do I most imperfectly present to the Society Miss Isobel Wylie Hutchison, L.L.D., F.R.S.G.S. of Carlwrie, Kirkliston, West Lothian, Scotland.


The Genus Primula: Section Farinosae. By Sir W. Wright Smith and H. R. Fletcher, Ph. D., D. Sc. Page 10. "In Miss Hutchison's paper... the plant is referred to as P. stricta and the most common species at Nome. It approaches so closely to the widespread P. mistassinica that we would assess it as a slender or pink-flowered variety of that species."

Writing to Miss Hutchison in May 1952, the late Sir William Wright Smith remarks: "You will remember that there was a very tiny specimen in your collection that was named P. stricta at Kew. This little plant appeared again in what was apparently a mixture in the collection made by Miss Reat (Nome). In that collection there was quite typical P. borealis, a slender form which has been called P. parvifolia and a third one which corresponds to the so-called P. stricta. In my view P. borealis and P. parvifolia are scarcely separable. On the other hand, according to Hulten, he does not see any specific difference between P. parvifolia and what has been called P. stricta. So between us we seem to link up all three within one broad unit. This seems rather difficult to believe but meanwhile it is the answer. In the conditions prevailing at Nome, certain situations seem to produce large flowered plants and less favorable conditions produce very dwarf representatives."

(Dr. Eric Hulten of Sweden is author of The Flora of the Aleutian Islands.)
The Petiolares Section In England

Mr. Clare is not only a Primula fancier and Nurseryman but, as you can see, an expert photographer.

BY T. C. CLARE

I enclose four photographs of members of the Petiolares section of Primulas which in England are, to say the least, tricky to grow. I have never yet seen Primula aureata grown in England. This does not say that it is impossible, as it is still a very uncommon plant.

As your climate in the States varies to such a vast extent in the different areas, it is difficult for me to write on the cultivation of the Petiolares group. Coming as they do from the high mountain areas of the Far East, they have two main requirements—any amount of moisture at their roots during the growing season and dryness at the Crowns during winter. In England, therefore, they are nearly all pot or pan grown, but in certain parts of Scotland they can be grown outdoors with comparative ease.

Two of the photographs are of lifted open ground plants. P. Edgeworthii alba was an open ground lifted clump from the garden of Col. Knox Finlay of Keillour Castle, Methven, Perthshire, Scotland, and the picture of P. souchifolia was also an open ground clump from the nursery of Mr. Jack Drake of Aviemore, Inverness, Scotland, who was awarded the George Forrest Memorial Medal for the plant at the Scottish Rock Garden Club's Show at Edinburgh in April 1955.

The plant of P. bhutanica was exhibited at the Alpine Garden Society's Show in London also in April 1955 by Mrs. Saunders, who lives in Kent, and who was awarded a cultural cer-
Primula aUionii

tificat e fo r he r plant , whic h wa s pa n
grown.
In England , unfortunately , at leas t
in th e ... e firs t I  ha d eve r seen , an d
with suc h heavenl y fragrance . Nex t
came th e polyanthu s , an d suc h a  dis-
11
[33x48]ure. P .
[33x115]alread y mentioned , the y nee d abun-
to ho w t o gro w th e member s o f thi s
variety.
[33x262]all member s o f th e grou p hav e t o b e
with grea t car e an d coverin g with glas s
and shad e o n their foliage , wit h com-
[34x104]dant wate r durin g th e growin g season.
[34x126]and P .
[384x175]petiolare s grou p i t require s plent y o f
water a t th e growin g season.
[34x153]it be  California  or  Alaska
BY JOSEPHINE HANSO N

Primroses in the Far North

Showing that a clever grower can achieve success with Primroses whether
it be California or Alaska

Primroses, along with pansies, "flags" and other flowers, grew in my
mother's garden in the State of Washington when I was a small girl, but
the intervening years in Alaska had all but obliterated them from my mem-
ory. Occasionally I would pause to look at pictures of them in the seed
and garden catalogues but passed them by, regretfully, for I had no idea that
they would thrive up here. Then, about six years ago we were living in
California and I bought a large flat of polyanthus seedlings from a nursery.
These were planted along a shady trail in a manzanita grove in the back
yard, where they grew to magnificent size and gave so much pleasure that
I couldn't bear to leave them behind when we returned to Alaska. I packed
the roots of a number of plants in damp cotton and brought them north
with me to the Bristol Bay region. The winters there are no more severe
than in the Anchorage area, but even during the summer there are strong
winds blowing in from the Bering Sea. The polyanthus were planted in boxes
of soil and kept in a daylight base-
ment. They bloomed in late February,
just as they had in their California
home. In May, I decided to plant them
outdoors for the summer. The boxes
were left outside for a few hours, and
when I went back to them the prim-
roses were nothing but dried shreds.
The strong winds had ruined them.
Not long after this, we moved to
our present home near Anchorage.
A half dozen plants were sent to me
by air from my California garden
and were planted outdoors in early Oc-
tober. We had an unusually heavy
snowfall that winter, accompanied by
long periods of sub-zero weather. In
April I could wait no longer, and
shoveled down through about four
feet of snow to see how my pets had
made out. How delighted I was to find
them looking as fresh and green as if
it were really spring! In May, as soon
as the snow had melted, they made
rapid growth and bloomed profusely.
That settled it—I must have more.
I ordered polyanthus transplants from
Oregon to be sent by air, with a few
auriculas and denticulatas. These were
planted at the foot of a gentle east
slope, where they were protected from
our coldest winds by trees on the
north. The spot where they were
planted was composed of a good po-
rous woods soil, with a thin layer of
our ever-present clay below, then gra-
vel, but the drainage was good. Well-
rotted manure, hauled from a farm
sixty miles away, was incorporated in-
to the top soil. (How doubly valuable
and dear are the friends who live on
a farm!) The transplants made good
growth all that summer with our days
of almost perpetual sunlight during
June and July, and in September the
bed was mulched with a thick cover-
ing of old manure. Enough snow usu-
ally arrives before the extreme cold
so the plants have ample protection,
even though the temperature may
sometimes drop to -40°. The following
spring, as soon as the snow had melt-
ed, the auriculas showed their fat buds.
They were the first of the primroses
to bloom, and how delightful they
were—the first I had ever seen, and
with such heavenly fragrance. Next
came the polyanthus, and such a dis-

P. bhutanica is a pale skyblue shading
to pure white with a yellow central
eyed, but it can be seen from the il-
farina. The plant illustrated is some-
thing of a botanical oddity. It is pin-
eyed, but it can be seen from the il-
ustration that the pistil is fully ex-
tended, even from the very immature
buds (see right of photo). P aureata
is a yellow cream shading to deep or-
ange at the center with a heavy
creamy farina on the leaves. Unfor-
tunately, with the exception of P.
souchifolia the stems of the flowers are
rather too short for perfection, espe-
cially in P. aureata.

The Petiolares group of Primulas
is one of the largest, but owing to the
difficulty of their cultivation, there
are only a few which are regularly
grown by even the most expert gar-
deners.

The last illustration is of P. aUionii,
a good rose pink form of a variable
and difficult plant. Again like the
Petiolares group it requires plenty of
water at the growing season.

( Courtesy o f th e author)
play they made—as though a florist shop window of flowers were set down in the garden. The denticulatas, too, were lovely. The primroses were the first flowers to bloom in the garden, which made them doubly welcome after the long dreary winter. Then, too, they have form, color, texture, and last but not least, fragrance. It is a peculiarity of our Alaskan flowers that they lack the fragrance they have when grown in the States.

Now I was really under the spell of these marvelous flowers. I joined the American Primrose Society, sent for any books I could find on primulas, and ordered seeds. Early last spring—far earlier than necessary, really—I planted seeds of polyanthus, auriculas, and denticulatas in boxes and set them outdoors beneath the snow to freeze. The family pets immediately discovered them and ruined several of the flats. The other boxes were placed out of reach of the pets, and early in May the little seedlings pushed through. These were left in the flats and transplanted to their permanent position in the open ground during the rainy season in August. This coming spring I shall see them bloom for the first time.

Last May I decided to try some of the candelabras and ordered transplants. They arrived the day after they were shipped from Oregon and were immediately planted on the west side of the house where the ground remains damp. These were actually more like full-grown plants and many were in full bloom when they arrived. They wilted a bit but revived in a few days and grew to an enormous size during the summer. I must wait for spring to see if they survive but, since they are supposed to be as hardy as the polyanthus, I feel quite confident that they will live through the winter. Also, we are having the warmest winter weather that I can recall in this area, and I can recall too many times when the temperature has not yet dropped to zero, and the winter is half over. I made room near the candelabras for some auricula transplants which were planted in September. Gravel chips were mixed in the soil for the auriculas. I also have a number of auriculas which I started from seed but these were so tiny that I was afraid to leave them outside all winter, so have them stored in an unheated garage. I have quite a lot of seed of different varieties stored in the refrigerator which I will begin planting in February or March.

One of the outstanding gardeners in Anchorage has told me that she tried growing primroses but they did not survive the winter. Some plants I gave a friend in the Matanuska Valley area also perished. In both instances I believe it was due to being planted in exposed positions. I firmly believe that as long as primroses have a blanket of snow or other protective material to protect them from drying winds they will survive any amount of cold. To emphasize this point, I would like to cite the experience of a neighbor of mine who is the most accomplished gardener I have yet met in Alaska. She moved from Anchorage to Palmer, in the Matanuska Valley area, and took with her some of her primulas. She grew auriculas, polyanthus, and Juliana hybrids, and had them blooming in April. Before the onslaught of severe cold, her plants were anchored about the base with about four inches of sand and cinders. She suggests that any similar material would do as well—anything to anchor the plants. The wind blows forty to fifty miles an hour in Palmer and blows away any snow covering. She used this same covering for phlox and other perennials not commonly grown up here. Although the sand and cinder mixture would freeze solid, her auriculas stayed green all winter. The auriculas bloomed first, and then the polyanthus. All her plants came through the winter one hundred percent with this covering. She found that her Juliana hybrids were extra hardy. Among the Julianas, she had "Nettie Gale" and "Lollipop," besides others, which she said were extremely beautiful.

Later she moved to Cordova along the Alaskan coast where the rain averages 181 inches per annum. There was very little snow covering, but freezing rains and winds. The so-called "soil" was composed of either rock or muskeg. There was a rampant growth of conifers, but no deciduous trees. Her home overlooked Orca Inlet and the back yard was composed entirely of rock. She experimented with making her own soil and tried eight or ten different mixtures, using mica, muskeg, and sand, and sent for some vermiculite to hold the moisture. She even mixed glacial silt and sand brought down from the Copper River Basin twenty-seven miles away. Here the same method of covering the plants with sand and cinders was used. The ones covered in this manner survived, but the ones left bare perished. Candelabras, polyanthus, Julianas, and auriculas were planted. The auriculas were definitely the hardiest. A few of the polyanthus, even though covered, were weak.

Incidentally, long-time readers of the Quarterly might be interested in knowing that although Mrs. Craft*, a former Alaskan member, is no longer living in Cordova, her primroses are still flourishing there. Those residents who have built a garden spot and have primroses received their "starts" from plants originating in Mrs. Craft's garden.

As I look out upon my garden in the winter, with the primroses sleeping beneath their deep blanket of snow, I am reminded of something Florence Levy once said: "there exists a special feeling of affinity between the gardener and his plants," and, knowing they are protected from their enemy, the icy winds of winter, I turn away, reassured, to wait impatiently for spring when I shall see them once again.

*Editor's Note — Long-time members will remember reading a letter from Mrs. Craft while she was residing in Cordova, Alaska, printed in the October 1944 issue of the Quarterly.

IN MEMORIAM

We do not know who it was who gave the name "Nettie Gale" to our hybrid Juliana, but we are sure that of all the honors, the nicest if not the greatest is to have a flower named for you.

This was brought to mind when the clipping arrived, sent to us by Ivy Agee, telling of the passing at 89 of little Nettie Gale.

Nettie Gale was a good gardener as well as plant hunter and it will benefit all of you to read her short article in the July 1950 Quarterly, "Grass Clippings Mulch."

Nettie Gale knew where all our western wild flowers could be found because she had found them herself, and from now on we shall be prouder of our "Nettie Gale."

Amendment to the Constitution

At the Annual Meeting of the American Primrose Society in Seattle, Washington, October 25, 1957, it was voted to amend the Constitution by addition to Article III, Section II of the By-Laws, as amended (page 144, Full Quarterly 1956). Active membership dues may be had for three years by payment of $10.00 in advance.

1958 WINTER QUARTERLY

12

13
Peter Klein, An Appreciation

Peter Klein's last great pleasure was the winning of the Bamford Trophy. Here the donor of that trophy pays his respects.

By Dan Bamford

I felt very sad when I heard that Peter Klein had crossed the border. I had never met him, even in correspondence, but I had a great admiration for him as a horticulturalist. This was enhanced when I read his many notes in the Quarterly of the A.P.S. and his recordings of success in cultivating and hybridizing many of the difficult Asiatic Primulas. His success in hybridizing many of these species made me sit up and take notice.

I first heard of his passing from Wilbur Graves, who replied to my letter on behalf of Peter Klein's family. No man could have spoken more highly of Pete than he did. A few days after the arrival of this letter Mrs. Agee notified me of Pete's death and nobody could have paid him a more gracious tribute than she did. Both these members spoke of his kind and gentle nature. The A.P.S. has indeed lost one of its outstanding members. I have since looked several times at the picture of him receiving the trophy from the hand of Mr. Cyrus Happy, and as I examined his features under my magnifying glass, I could clearly see the look of pleasure on his face, but at the same time I suspected he was a tired and sick man. It must be a consolation to all members that he lived long enough for you to honor him to the full and finally for him to receive his trophy. I cannot write of all of his achievements, that is something only you in America can do. What I can say is that his success in raising double primroses and developing the Gold Laced Polyanthus proves beyond doubt that he had a soul perfectly tuned in to the more refined treasures of the past.

The American Primrose Society was fortunate to have such a member and it is up to all of us to emulate him and so leave the world a little brighter and happier than when we first entered it. Many, many pass on without leaving a slight ripple on the affections of those they have known. Not so Pete. At every show you attend in the years ahead you will think of him as the gentleman he was.

Peter Klein has now enriched the majori ty over yonder, leaving all members sadder and the world poorer. He has passed through that narrow gate all right, I have no doubt about that, but I know he has left behind a little garden of remembrance in the heart of every member of this Society. There will be none among you who will not say that you would gladly have him with you longer, if only for a short time, but as that cannot be, I know you will say with one accord, "It was well that he passed our way." I am sure that the sympathy of the whole of this Society will go out to his family in their sad bereavement.

Make Your Own Naturalistic Garden

Our own native flowering plants have their own very special appeal.

By Katherine S. Taylor

Would you like to have a naturalistic garden of native flowering plants? Have you always thought that a woodland plot or other natural habitat is necessary to grow wild flowers? Surely many gardeners have thought positively about these queries, only to abandon the idea because such an area was not available.

On the other hand, many wait to retire to the country, but when the time comes they do not have the energy to undertake such a project. Yet, if you are willing to create your own substitute for a natural garden and be satisfied with the best imitation possible, then you, too, can start to make your dream of a wild garden a realization.

Blue phlox (P. divaricata), creeping phlox (P. stolonifera) and Primula sieboldii alba enjoy the moist root run between rocks provided by pool and running brook.

(Courtesy Horticulture magazine)
the coniferous forest where these lady's-slippers grow at their best. Intensely acid soil which contains a fungus associated with the roots of these woodland plants is a condition which cannot be duplicated artificially. Innumerable efforts of wild flower lovers to transplant these orchids to their gardens end in failure within five years, usually after two.

Although the strongly acid coniferous forest is difficult to duplicate, the moderately acid conditions of a deciduous woods can be achieved, so that many wild flowers from such habitats will feel at home. In preparing a garden for these plants, attention must be given to their needs for light and moisture. Then select trees and shrubs, which form the backbone of the garden and provide shelter for the more fragile wild flowers. Because deciduous trees do not leaf out until spring has advanced, flowering plants beneath them have an opportunity to benefit from the sunlight needed for blooming.

For contrast include both evergreen and deciduous plants. Relatively small-growing trees such as the Carolina silverbell (Halesia carolina), flowering dogwood, witch-hazel, birch, pussy-willow, hornbeam, sassafras, hemlock and red cedar are appropriate.

Thus, flowering crab-apples, Washington holly, magnolias, Japanese cherries, Japanese dogwood (Cornus kousa), Chinese witch-hazel (Hamamelis mollis) and sourwood (Oxydendrum arboreum) are trees that can be planted to add interest.

Dwarf cypress, Irish yew, leucothoe andromeda, mountain-laurel, d warf Euonymus, Japanese holly, azaleas, rhododendrons, blueberry, bayberry, red-vein enkianthus, evergreen barberry (Berberis verruculosa), potentillas, cotoneasters, boxwood, rhodora, wild roses, spicebush, clethra, and viburnums of various kinds comprise the shrubs in your garden.

For the wild flowers to flourish, a source of constant moisture was provided by a small bog at one end of the pool and a tiny brook that runs continually from early spring until fall.

The brook was constructed by hollowing out a shallow trench, which was lined with puddled clay from a river bottom. This made it possible to plant wild flowers along its edge, with no danger of being washed out by floods. This compensates, to a considerable degree, for the fact that the brook is not natural. The brook ends in a bed of yellow flag (Iris pseudacorus) and Japanese iris, whose roots absorb any excess moisture.

Plants for Boggy Areas
A leaky wall built across one end of the pool provided a suitable bog area for pitcher-plants, meadow-beauty cardinal-flower, creeping snowberry and wild calla planted in peaty soil. The surface of the little bog has become covered with sphagnum moss, thus affording congenial surroundings for the plants. Water-lilies do well in the pool with a few plants of arrowhead.

Practically every wild plant brought into the garden since it was started, about twenty-five years ago, is still flourishing. Most natives, collected from areas where they grow abundantly, include bloodroot, snow-trillium, yellow violet, yellow lady's-slipper, dog's-tooth-violet, blue cohosh, baneberry and many ferns. Dutchman's-breeches does not grow without some lime in the soil.

The soil consisted of rather heavy clay, poorly drained, moist for most of the year and moderately acid. The accumulation of leafmold and compost over the years has greatly improved the soil structure and gives a permanent mulch. Trailing arbutus, bunchberry and plants which require highly acid soil will not grow in this environment, but have been made happy in a natural area elsewhere where the pink lady's-slippers are coming in on their own.

Special appeal in my wild garden is created when flowers usually found in formal plots are effectively used in this naturalistic setting. The lungworts, Pulmonaria saccharata, the pink P. saccharata Mrs. Moon and P. augustifolia, are among the earliest to bloom, following Adonis vernalis, which flowers in early March with the snowdrops. Spring vetch (Lathyrus vernus) and Virginia bluebells (Mertensia virginica) are at home among the bloodroots and other natives. The western erythroniums have become established.

Although blue phlox (Phlox divaricata) is a splendid plant, a more useful one, with blue flowers is creeping phlox (P. stolonifera) which forms a perfect ground cover. Sweet woodruff is attractive for its flowers and foliage, though it spreads quickly.

Use Ground Covers
Ground covers are very important in the wild garden, where no areas should remain bare. They help to maintain humidity and protect the wild flowers from drying winds. Annual forget-me-nots take over every unoccupied bit of space.

One of the most satisfactory plants for the shade is epimedium, with barberry-like flowers in yellow, white, red, buff and pinkish-lavender. Its compound leaves are very handsome, making it an attractive ground cover throughout the season. The dwarf Iris cristata and I. gracilipes also are well suited to shady locations.

Although the native wood anemone fails to bloom after transplanting to the garden, other anemones are delightful along the banks of the little brook in early spring. Among them are the yellow Anemone ranunculoides, the dark blue A. apennina, the pink A. blanda rosea and the lovely
lavender *A. nemorosa*. The lesser celandine (*Ranunculus ficaria*), with bright yellow, shining petals, blooms with the anemones, but keep only a little. The small bulbous roots multiply insidiously, forming large mats which may be temporarily forgotten, because the foliage disappears soon after the flowers have faded. Lesser celandine will kill out choicer plants.

The various primroses are all happy in this moist, shady environment. The round heads of lavender or white *Primula denticulata* come first, soon followed by the bright *P. Rosea*. Then come *P. acutus*, *P. Veris*, *P. vulgaris*, *P. polyantha* and the choice *P. auricula*. *P. sieboldi alba* is very beautiful, with its umbels of large white flowers and distinctive leaves with scalloped edges. It almost forms a ground cover, since it increases by runners and by seed.

In addition to the western erythroniums, the western camassias also do well in the garden. Other interesting spring bloomers are shortia, pasque-flower, Lenten rose (*Helleborus orientalis*), twin-leaf (*Jeffersonia dubia*), celandine poppy (*Stylophorum diphyllum*), double bloodroot, dwarf bleeding-heart, especially the white, European wild ginger and many of the conventional spring bulbs which form sheets of yellow and purple along the paths. English blue-bells (*Cilia unta*ns) and narcissus W. P. Milner are special favorites.

There are always ferns to keep the garden cool and shaded. Cardinal-flower, from the bog, sows itself in all sorts of places, some of the best plants appearing in the driest parts of the rock garden in full sun.

**Harebells Everywhere**

The great blue lobelia (*L. siphilitica*) and its white form are almost pests and have to be pulled out from the edge of the brook. Harebells come up everywhere in crannies among the stones and blossom up to frost. Meadow-rue, rose-mallow, turtle-head, ironweed and turk's-cap-lily are favorities among the tall perennials. The Canada lily has not yet become established.

In August, the delicate flowers of European cyclamen (*Cyclamen europaeum*) suddenly appear in shady nooks, followed by the Neapolitan cyclamen (*C. neapolitanum*), which last from September to frost. This cyclamen makes broad clumps of intriguingly marbled foliage, studded with qualities of pink or white flowers. It is a perfect treasure for a naturalistic garden. With it appear the late gentians, belated lobelias, the dark blue leadwort (*Ceratostigma plumbaginoides*), blue eupatorium, fall crocus and colchicums.

The colorful fall foliage of such shrubs as enkianthus and blueberry and the bright fruits of cotoneaster, dogwood, thorn and crab-apple end the season with a gay note. After a killing frost has taken the last flowers, most of the wild garden is covered lightly with pine needles. This brings the plants safely through the winter.  

**SORRY**

Following the review of Mr. C. G. Hayson's book "Florists' Auriculas and Gold-Laced Polyanthus" by James Stuart McLees (p 140 Fall Quarterly 1957) the name of the publisher was inadvertently omitted. The book is published by W. H. & L. Collingridge Ltd., 2-10 Tavistock St., Covent Garden, London, W.C.2, England.

Have you sent your 1958 dues to the Treasurer? You know you can now send in $10.00 and forget about dues for the next three years.

---

**Letter From Vermont**

_Grown in a spot where it can self sow freely, P. saxattilis is only one of the many reasons we love Primula so much._

**BY ALICE HILLS BAYLOR**

I have had a little unnammed member of the *P. cortusoides* group in my garden for many years. It has long been a favorite as it blooms in May, giving a splendid display of bright pink flowers on a six-inch stem above the light green crinkly foliage. The remarkable characteristic about this plant is that it continues to throw flower stalk after flower stalk all summer and in September decides to make a special splash of color! Today, November 22, there is a snow storm in the Green Mountain State and *P. cortusoides* has a member in bloom. In the morning very likely there will be a bright spot above the snow as the color deepens as the season advances.

Last winter I had some correspondence with Mr. Chester K. Strong, of Loveland, Colorado, concerning members in the cortusoides group and I...
Fluorescent Lights For Seedlings

A successful landscape architect in Vermont tells how she uses fluorescent lights.

By Alice Hills Baylor

I have read many articles on the growing of plants and seedlings by the use of fluorescent lights, all of which impressed me as being such complete success stories that I was induced to try my luck.

Last January I had three 36" lamps installed with pulley lifts in our basement. Under the lights we put a bench mounted on wooden horses at a convenient height. The bench had a wooden frame two feet high on three sides on which I tacked aluminum foil for reflected light. A fourth side was made to hook on so that it could be used in the front and taken off when one wished to work at the bench. The temperature in our basement is between 50 and 55 degrees which proved perfect for the growth of seedlings.

On November second I sowed seeds of six varieties of Primroses in separate clay pots and placed them in wooden boxes out of doors. By December sixth I had finished sowing twenty-seven more varieties and did likewise with the pots. By then we had good snow coverage and I brought in the pots put out in November. These boxes were placed under the bench in the basement. Every morning for a week I put a heavy layer of snow on top of the pots and the snow would be melted by the following morning. Within ten days the auricula seeds began to germinate. I placed the pots under the lights with four inches allowed between top of pot and lights. To my astonishment the seedlings grew like the proverbial weed! As the seedlings formed the second leaf they were lifted from the pot with a pickle fork (my most valuable seedling tool) and planted in flats.

The soil in the pots was lean with grit and with shredded sphagnum moss as a topping. The soil in the flats was one-third garden loam, one-third sand, and one-third well-rotted sifted cow manure. The remaining pots were brought into the basement and placed under the bench during January and the same procedure of snow treatment used. Acaulis seed was the last to germinate, taking about a month. P. involucrata seedlings were transplanted into flats March 25th.

Now the success story stops! During March I noticed a mold on the sides of the flats as I had over watered. I used a fungicide drench, separated the flats for better circulation of air, and put an electric fan about ten feet away from the bench but the mold continued in about two-thirds of the flats. These were brought upstairs to dry out. Over half of the flats had to be discarded, new soil mixed and seedlings, then about the size of one's little finger nail, transplanted in slightly moist soil and replaced under the lights. Every seedling survived and grew with astounding rapidity.

In May the flats were moved out of doors and placed in frames with plastic sides which extended a foot above the top of the flats for protection from the wind. In June, when the seedlings were hanging out of the flats like many fledglings in a nest, they were planted in the terrace garden in well prepared Primrose soil. In August many came into bloom, while P. saxatilis was in bloom a week after being transplanted into the garden! Now, September 20th, I have what appear to be two-year-old seedlings and the acaulis are in bloom as are many of the polyanthus.

At this point the story is again a success but the price for success was almost ten hours of work a day during the March period of transplanting because of mold. The problem was moisture. I had used what I considered great restraint in watering while following the advice of others. I found the top of the flat had to "seem" dry before using water.

I have transplanted more seedlings than one could enumerate but never before have I had such husky plants with such well developed root systems. Fluorescent lights develop seedlings better than any method I have previously tried.

(Continued on Page 28)
QUESTION AND ANSWER DEPARTMENT

Q. I would like to know why good show auriculas do not open flat sometimes, as they are supposed to. All the blossoms on a Holmsley green remained a little cup-shaped; also Embley gray.

A. Cupping is due to cold weather and cold nights while the pips are opening. It must be remembered that the pips of the edged shows are made of leaf material which is heavy and tough and it takes the right amount of food and sunshine to open them flat.

This question is so important that the following letter on the subject from our President, Cyrus Happy III, winner of the Bamford Trophy in 1956, is printed in toto.

Dear Charles: I hope this will ease the disappointments that so many new growers have felt with the first blooms. It takes several years of experience before the process is thoroughly understood, and that is why growing auriculas is a year-round hobby.

Holmsley was the first green edge I tried. It has never failed to bloom and with at least five pips. Never once has it been cupped. Cupping is usually due to cold weather and cold nights. Just one night in a warm kitchen followed by a little pressure on the petals will usually flatten them. However, the plants must have a steady supply of food. If the potting soil begins to run out of nutrients as the truss is developing, the pips will not develop evenly and some distortion will result. I use Liquinox 10-0-10 at half the recommended strength for watering at this time.

The production of a prize plant (in perfect character) is not clearly understood by new growers. The ideal is as follows. In early spring a good rooted offset is removed from the mother plant and potted in a three-inch pot. This offset is then grown on without any setbacks, develops well and is re-potted in a four-inch pot in August. It is still not as large as the mother plant but has all the vigor of youth. The following spring, providing all other factors of soil, water, and climate are favorable, you will have a prize truss on this plant. The old mother plant will remain just that. It seldom produces worth-while bloom but is kept for the production of new offsets. If it fails in this, the heading is in order which forces the dormant side buds into growth. Thus you could have, say, ten plants of Holmsley in various degrees of development with perhaps one or two of exhibition quality. You are too optimistic if you expect newly produced show auriculas to produce prize bloom with their first truss.

Q. I have some polyanthus plants I did not get divided last season when I should have. Could they be divided early in the spring?

A. Yes. In fact, some gardeners prefer to divide polyanthus plants in early spring. Although directly after blooming is the ideal time to divide polyanthus clumps, they will benefit by dividing at any time provided it is at least a month before cold weather. Remember that the outside offsets will make the best plants.

Q. I have intended to give our primroses some bone meal this next season. How soon may this be applied?

A. As it takes about three months to become available to the plants, bone meal should be dug in well in advance. As any amount of bone meal will not burn, it can be used at any time, the best time being when plants are set out. If you did not get it dug in last fall, dig some in when the ground becomes workable in the spring. At least ten pounds for every 100 square feet.

Old Auricula

Our British research editor makes our mouth water with his talk of the old "Dusty Millers."

BY CAPTAIN COMLEY HAWKES

The Auricula as we know it was most likely brought to the British Isles by the Flemish weavers who, driven from their own land by persecution, settled near some of the bigger towns such as Norwich, Macclesfield, Paisley, Spitalsfields, and Manchester. At Manchester and Middleton, Lancashire, the old artisans became interested in the flowers which the weavers brought with them and soon, in their very limited leisure, took up the cultivation of these flowers, maintained their excellence, and made a good improvement. The Auricula of today has been brought to a high standard of excellence, and our best plants are to be admired at the wonderful range of colors.

But it is the old types with which we are concerned at the moment as they, or those that are left, are very lovely. Many of the show and alpine varieties of today are exceptionally beautiful, yet they lack the naturalness and beauty of some of the old kinds which were grown by our ancestors several centuries ago. Many of these old things have now been lost to cultivation, yet we are still left with some lovely kinds, which in some cases have become rather scarce but are still available to those interested in they flowers of our forebears.

The Auricula is certainly among our oldest cultivated plants and it is thought by some to have been brought by the Romans; while it is certain that they were being grown in England in the 16th century. Gerard (1595) mentions four kinds; Luteo-yellow; Purpure-purple; C 1 u s e i-R e d Bears Ears, and a scarlet. We still have the first three, but the scarlet appears to be lost. It seems to be these we now call Dusty Millers. Today we have the Old Yellow Dusty Miller with such densely powdered leaves as to make them appear almost white, while there is also a buff form of this; The Old Chocolate Dusty Miller and the Old Purple with a large head of big rich flowers backed by a leaf of green. The last mentioned is a very old plant and is thought to be a survival of the "great purple Jack-a-napes" of the 17th century. Then we have Old Bronze which carries a head of quaintly beautiful smoky-bronze flowers, and the Old Irish Blue with large frilled blue flowers, not to be confused with the modern Blue which is quite different.

Some of these old auriculas have lost their original name or have been lost to sight, yet are still lingering in some remote Scottish or Irish garden where time has stood still; a few years ago a quaint kind was found and is now called "Osborne Green." The flower is almost black with edges of white flaked green.

Mention must be made of the double auriculas which not many years ago were plentiful but have now become quite rare. The best known of
these is “The Cardinal,” deep crimson, said to have been a rarity stolen from the garden of the famous “Cardinal Richelieu.” These doubles now appear to be coming into fashion again and while hybridists are working on re-introducing them, the new ones do not seem to have lost any of their old world charm. All these old auriculas are easily grown and perfectly hardy but those with downy leaves welcome a sheet of glass for protection against the heavy winter rains. That many kinds have been lost is certain, for Samuel Gilbert in his “Florist’s Vade Mecum” published in 1702 mentioned some thirty kinds, which he describes as Full Flesh Color, Hair color, purple, willow color, liver color, mauve color, clove, light tawny, crimson, and crimson and white stripe, etc. These plants were known in Gloucestershire as “Vanner’s Aprons” no doubt in allusion to the leathery leaves, and in other parts as “Bazies” referring to the haize aprons worn by some tradesmen.

Primroses in the Home Garden

Mrs. Hitching just skims the surface here. We hope to have her go deeper into the subject at a later date.

By Mabel P. Hitching

During the last three years I have been growing primroses in my own garden in the San Juan Islands and it has been my experience that it is not difficult for non-professional growers to produce good, sturdy, and attractive plants.

Proper soil conditions and water are the two essentials. Peat moss, old manure, loam, and sand in equal quantities are the requisites for proper soil quality. Soil requirements vary, however, since some plants require alkaline, and some acid soil. Of all types of peat moss available I have found “Blue Whale” to be by far the most satisfactory. Spray watering is not recommended as some types of primroses must be watered at the roots only. A third point to bear in mind is the plant’s location. The wild primrose can nearly always be found at the foot of trees. Therefore partial shade is essential, but not so deep that the sun cannot penetrate.

The winters here can be quite severe with temperatures at times around 15 to 20 degrees above zero. I find a light sawdust mulch covering the ground around the plants will preserve them through almost any weather.

Careful attention along the above lines will produce satisfactory results. Most primroses bloom in the spring but a study of the various sections is quite rewarding, since a careful selection can provide blooms throughout the year.

The cultivation of primroses is not only an enjoyable task, but a very rewarding one since the original plant reproduces itself many times, and separation is easy. In three years I have now at least twice as many from the original plants as when I started.

Above all things, one must love primroses themselves to get the best results.

The winter here can be quite severe with temperatures at times around 15 to 20 degrees above zero. I find a light sawdust mulch covering the ground around the plants will preserve them through almost any weather.

Careful attention along the above lines will produce satisfactory results. Most primroses bloom in the spring but a study of the various sections is quite rewarding, since a careful selection can provide blooms throughout the year.

The cultivation of primroses is not only an enjoyable task, but a very rewarding one since the original plant reproduces itself many times, and separation is easy. In three years I have now at least twice as many from the original plants as when I started.

Above all things, one must love primroses themselves to get the best results.

Seed Offered for Exchange by The American Primrose Society

January 1958

An effort is being made to overcome the problem of what to do with seed received in small amounts, a difficulty that seems to plague all seed exchanges. If seed in this category are boldly placed upon the list the supply is soon exhausted, requests cannot be filled, and disappointment results. These seed are included in this list but a forewarning of possible disappointment is indicated by *, which signifies that the supply is limited or in some cases the supply is quite insignificant.

As all requests for seed are filled in rotation, as they arrive, under this system some disappointment will result. However, the function of the exchange is to give wider dispersal to rarer, hard-to-get seed. A little disappointment now may result in a fuller supply of these seed as plants become established in gardens.
ASSOCIATE PLANTS

Allium cernuum
Alstroemeria angustifolia, handsome but not hardy in rigorous climates
Alyssum argenteum
* Alyssum podolicum
Alyssum saxatilis
Amsonia tabernaemontana, 2-3', flowers blue
Androsace carnea var. irrigantica
* Androsace carnea ssp. Laggeri
* Androsace Chamaejasme
* Anemone cocinea
* Anemone Fulgens
* Anemone leuvelloi
* Anemone pulsatilla
Anemone sylvestris
Anemone sulphurea
* Anemone, white
* Aquilegia Atkinesis
Aquilegia caerulea, rose shades
* Aquilegia longissima
Aquilegia vulgaris
Arisaema triphyllum
Arabis muralis
* Armeria caespitosa
Armeria formosa hybrids
Arctostaphylos uva-ursi, bearberry, kinnikinnick, a ground cover

Aster alpinus
Aster alpinus, "Blue Boy"
Aster frikartii, to 2½ ft., long-blooming lavender-blue
* Aster Kumlinei roscus
* Aster Pappel
* Aubrietia grandiflora, hybrids
Azalea mollis
* Brodea laxa
* Boykinia rotundifolia
Calochortus Gunnisoni, collected, (Mari-posa) not as colorful as some other species
Camassia leichtlinii
Campanula alliariifolia, to 2 feet
* Campanula Aucheri
Campanula barbera
Campanula carpatica
Campanula persicifolia alba
Campanula rotundifolia
Campanula sarmatica
* Campanula saxifraga
Cemanthemum autumnale
Cerastium lanatum alpinum - not invasive
Cercocarpus parvifolius, a characterful, rugged, slow-growing shrub of well-drained soils. (Mountain mahogany)
Cheiranthus cheiri
Chrysanthenum coronopifolium
Clematis alpina (Altrage)

Codonopsis clematidea
Cornus canadensis
* Cortusa Matthioli
Carydalis Wilsoni
Cotoneaster spiculata
* Cyclamen neopolitanum
* Cyclamen, mixed
* Cyclamen europaeum
Cynoglossum nemorosum
* Cyripedium montanum, white
Cyripedium parviflorum, creamy white
Cyripedium parviflorum, yellow
Daphne Mezereum
Delphinium, Chinese, deep blue, azure and white, exquisite
Dianthus Allwoodi alpinus
Dianthus arenarius
Dianthus artorubens
Dianthus barbatus, deep red
Dianthus caesius
* Dianthus corsica
Dianthus deltoides, "Brilliant"
* Dianthus deltoides, white, 7-8"* Dianthus fragrans
Dianthus, fringed pinks (singles)
* Dianthus glacialis, true tiny alpine
Dianthus gratianopolitanus
Dianthus, "Highland Queen"
Dianthus, Irish Cottage
Dianthus, la Bourbrille
* Dianthus "Loveliness" (mixed colors, lovely perfume)
Dianthus neglectus
Dianthus plumarius
Dianthus, red
Dianthus Boysii
Dianthus veltroides
Dodecatheon sp.
Dodecatheon Meadia
Doronicum cordatum
Doryanthes grandiflorum
* Dryas octopetala
Edraianthus dalmaticus
Ericognus glaucus
Erycomyllum tectorum
Erysimum umbellatum
Erysimum pulchrum
Erythronium californicum, (ed. G. s. saxatilis, no height, G. Tusaka rindo to 3-4 inches)
* Gentiana scabra Buergeri Kunsawa
* Gentiana septemflora
* Gentiana verna
* Geum Borsii
Globularia cordifolia (bellidifolia)
Globularia nudicaulis
Globularia tricostanha
* Gregoria Vitaliana
Helianthemum, "Flame"
Helianthemum "Golden Nugget"
Helianthemum matabile
Hemerocallis minor
Hesperantha villoum
Hutchesia alpina
Hypericum coris
Incarnvillea Delavayi
Iris Dougliana
Iris Kaempferia
Iris missouriensis
Iris setosa
* Iris - seed from an unusually large, beautiful blue bulbous Iris
Lapeirousa cruenta
Leontopodium sp. albanicum
* Lewisia Tewdley
Lilium formosana
Lilium martagon alba
Linaria alpina
Linum flavum
Linum perenne
* Lobelia cardinalis
Lobelia Dresdenens
Lobelia sphyilitica
Lupinus nootkatensis (from Alaska)
Lupinus polyphyllus
Lychins Abbotsford rose
Maianthemum canadense
Marigold, single African
Mecanopsis betonicifolia
Mecanopsis cambria
Mecanopsis simplicifolia, purple
Mecanopsis from SS & W mahogany red

P. alpicola
P. aurantiaca
P. Bulleyana
P. candelabra
P. candelabra, Bartley strain
P. capitata
* P. Cawdoriana
P. chionantha
P. chingensis
* P. Cockburniana
P. denticulata
* P. elatior, Bardfield oxlip, collected in England
P. Floritidae
P. frondosa
P. grandis, collected in France
P. helodoxa
P. Inshriach hybrids
* P. involucrata
P. japonica
P. japonica, "Glowing Embers"
P. japonica, pink
P. japonica, "White Cloud"
P. lutetola
* P. margaritana
* P. modesta var. Fauriae
* P. nutans
P. Parryi, collected
P. Poissonii
P. polyneura
P. pulverulenta
P. pulverulenta, Bartley strain
P. pulverulenta, claret
* P. rubra, collected in France
* P. rubra, garden grown
P. saxatilis
P. secundiflora
P. Sieboldi
P. sikkmensis, yellow and art shades
P. sinopapurea
* P. verticillata, a Californian suggests this as a house plant
P. vicsosa
* P. yaragonensis

ASSOCIATE PLANTS (Cont'd.)

Gaultheria procumbens
Gazania hybrids, half-hardy perennials
Gentiana acaulis
Gentiana Andrews
Gentiana asclepiadea
Gentiana clausa
Gentiana hascbomensis
Gentiana linearis
Gentiana lutea

* Gentiana scabra saxatilis und Tukasa rindo, grown side by side and seed mixed in harvesting, possibly some natural hybridization occurred. G. s. saxatilis, no height, G. Tusaka rindo to 3-4 inches.

* Gentiana scabra Buergeri Kunsawa
* Gentiana setemflora
* Gentiana verna
* Geum Borsii
Globularia cordifolia (bellidifolia)
Globularia nudicaulis
Globularia tricostanha
* Gregoria Vitaliana
Helianthemum, "Flame"
Helianthemum "Golden Nugget" Helianthemum matabile
Hemerocallis minor
Hesperantha villoum
Hutchesia alpina
Hypericum coris
Incarnvillea Delavayi
Iris Dougliana
Iris Kaempferia
Iris missouriensis
Iris setosa
* Iris - seed from an unusually large, beautiful blue bulbous Iris
Lapeirousa cruenta
Leontopodium sp. albanicum
* Lewisia Tewdley
Lilium formosana
Lilium martagon alba
Linaria alpina
Linum flavum
Linum perenne
* Lobelia cardinalis
Lobelia Dresdenens
Lobelia sphyilitica
Lupinus nootkatensis (from Alaska)
Lupinus polyphyllus
Lychins Abbotsford rose
Maianthemum canadense
Marigold, single African
Mecanopsis betonicifolia
Mecanopsis cambria
Mecanopsis simplicifolia, purple
Mecanopsis from SS & W mahogany red
ASSOCIATE PLANTS (Cont’d.)

Mcconopsis from SS & W 6943, a good pink
Mcconopsis from SS & W 3996, yellow
Meconopsis villosa
Mimulus ringens
Mitchella repens
Muscari azureum
Myosotis, species not known, an excellent perennial form, doing quite well in shade
Narcissus bulbocodium
*Nomocharis aperta
*Nomocharis pardanthina. (Never transplant until third year, and never when dormant.)
Oenothera pumila
*Orchis maculata
*Oxypetalum Halleri
Papaver pilosum
Papaver Sendneri
Papaver alpinum

Penstemon - from Flathead Lake, Montana, to 30°, red or purple trumpet flowers
Penstemon Hartweggi - grower notes that seed are from best lavender and bright red blossoms

Penstemon Richardsoni - grower warns that this plant is difficult to propagate, either by seed or cuttings, suggests plants be shaded from noonday sun

Penstemon from Mammoth Hot Springs, a worthy plant
Penstemon Scouleri

*Phlox divaricata
*Phyteuma obculare
Potentilla megalantha
Potentilla Warrenii
Pulsatilla Halleri
Saxifraga aquatica
*Saxifraga decipiens, Tiny red form
Scabiosa alpina
Scabiosa lucida
Scilla sinesis
Silene saxifraga
Sievesia eilata
Sisyrinchium angustifolium
Smilacina racemosa
*Soldanella alpina
Synthysia stellata
Tellima grandiflora (from Alaska)
Thalictrum diperoxcarpum
*Trillium grandiflorum
Trillium undulatum
Trollius europaeus
Tulipa chrysantha
Tulipa DeWett
Tulipa Kaufmaniana
Tulip, single early
Veronica Meconophylla
Vesicaria utriculata
Viburnum carlesi
Viburnum trilobum
Viola arenaria rosea
Viola 'Black Imp'
Viola cuculata rubra
Viola Princeanna

It will not be necessary for members of the Society who request seed to enclose a stamped envelope, as these will be furnished again this year; however, postage for the return of seed should be enclosed with the request. For each 25° remitted, six packets of seed will be forwarded, but only one packet of each variety. Quantities will be limited on most. Labels (names) are those of growers, and comments on seed come from contributors. Requests must be made before March 15. It will be well to indicate substitute choices, particularly on those marked with an asterisk. The distributor will always fill all requests to the best of his ability. Requests should be directed to: Chester K. Strong, Box 126, Loveland, Colorado.

Fluorescent Lighting
(Continued from Page 21)

If you are not on our mailing list Write for

BARNHAVEN'S New Catalog No. 16
They say it's as light-hearted as spring
BARNHAVEN GRESHAM, ORGEO

Seasonal Notes From Barnhaven

By Florence Levy

At last Barnhaven’s long-promised new catalog is ready. Writing a catalog, I am sure, something all nurserymen dread. For one thing, winter is not a time of leisure for mail order people as others might think. The long hours are the same; it is only the type of work and dead-lines that change; therefore, doing a new catalog is anticipated with something less than joy. However, as with most tasks, when no more pencils can be found to sharpen and the start can be put off no longer, pride in the product being presented wells up with fresh force and its planning and composition hold the writer in a grip of fascination until completed.

This is the first complete catalog Barnhaven has issued in four years and, instead of being dated 1958, it is being identified as Number 16 because another four years may slip by before the next one is written. In this way the annual supplements issued to present new stock will always refer to a current catalog. At the moment, knowledge that No. 17 must eventually be materialized is passed over quietly because No. 16 had to be thought through and written twice. The “once-in-a-lifetime” catastrophe happened. Copy was lost without trace at press. If you want to see how it finally turned out, just write for Catalog No. 16, Barnhaven, Gresham, Oregon.

Doubtless many of you have read “Primroses and Polyanthus” by Genders and Taylor, which is a delightful piece of writing. You will have the opportunity of reading two more books by Roy Genders this year. They both appear to be as charming as the author, who lives in Yorkshire, England. The copies sent me were press proofs, the finished books will be ready for sale this month through W. & G. Foyle, Ltd., 119-125 Charing Cross Road, London, W.C. 2, England. Prices will probably be modest plus the advantage we have in the current rate of exchange.

The Auricula book will carry six color photographs specially taken. The book has been loaned and chapters cannot be listed here, but its appeal is distinctly remembered. Referring to “Polyanthus for Garden, Exhibition and Market” just received, the chapter listing leading American, British, New Zealand, and European strains will be of interest as will chapters on origin, in the garden, culture, as cut flowers, cutting and market in bloom, propagation, and others.

If you live in the Pacific Northwest, all of your spare time is not being used for reading this winter. We are having, so far, one of those lovely—dangerous—open winters with more sun and less freezing weather than usual. Primroses are throwing caution to the winds and blooming madly, presenting their most vulnerable side to the first sudden hard freeze coming down from the Arctic without a moment’s notice. Help them keep their buds and bloom by having on hand such materials as wood excelsior, evergreen boughs, or hay, and cover your plantings generously when the freeze does come, leaving it on until the soil beneath the covering has completely thawed before removing. Read previous Barnhaven Notes for nature of primroses, why winter bloom makes them vulnerable, and how to save them from themselves.

Paid Advertisement
Where There Is CUPROLIGNUM
There is no rot for Flots—Benches—Fence Posts
At Lumber Yards—Hardware Stores Everywhere

RUDD & CUMMINGS

ROCKERY PLANTS
Including Auricula and other Primula
Peat Moss—Liquinox—Ortho and Miller Sprays

JUNCTION FEED & SEED
4747 California Avenue
Seattle 16, Wash.

Garden Auriculas
35c 50c 75c
Selected and re-selected for color and form
Sold at Nursery Only
SEE THEM WHILE IN BLOOM
No Seed

Mrs. Alice E. Bettington
7422 S.E. Madison
Portland 16, Oregon

January is dormant spray time
You will be surprised at the difference next spring!

CORNERS NURSERIES
AND GARDEN STORE
First Ave. South at 160th
Seattle 88, Wash.

CARCO-X
Used as a dormant spray will cut down your bug population next spring and make your gardening much easier.

POSTPAID PRICES
1/2 pint CARCO-X $1.65
1 pint $2.25
1 quart $3.50
1 gallon $9.90

GETZUM PRODUCTS
P.O. Box 37, Sumner, Wash.

POLYANTHUS CANDELABRA
AURICULAS DENTICULATAS
PLANTS SEEDS
List on request
Will ship to all States

SKY HOOK FARM
JOHNSON, VERMONT

Gardens at Lumbar Yards—Hardware Stores Everywhere

RUDD & CUMMINGS

PRIMROSES AND SLUG-FEST GO TOGETHER

The New Liquid Control Developed by Regional Chemical
Safe for Pets, Children, Plants, and Lawns
Leaves no residue; no unsightly piles
Kills on contact
Applied with sprinkling can or hose applicator
Liquid formula allows treatment of large areas.

At all better garden supply houses
A product of Regional Chemicals
14756-27th Avenue N.E., Seattle 55, Wash.

AMERICAN PRIMROSE SOCIETY
31
IF YOU ARE INTERESTED
IN ROCK GARDEN PLANTS
THE SCOTTISH ROCK GARDEN
CLUB
OFFERS A WELCOME TO OVERSEAS MEMBERS
Interesting and instructive Journals, Seed Exchange and Distribution, and Free advice on cultivation by experts. Annual subscription 10/ or $1.50. (If paid by check please add .25 for handling). Particulars and enrollment Form from:
HONORARY PUBLICITY MANAGER, JAMES T. AITKEN
75 Whitehouse Road, Barnton, Midlothian, Scotland

PRIMROSE SEEDS
Unknown Crosses by Peter Klein
Peter Klein died without passing on his code, so there is no way to tell what these seeds are. Ordinarily, some of these crosses would have cost $5 a packet but, under the circumstances, the entire stock of seeds will be sold at a sacrifice for $1.00 per packet of 50 seeds.
Early purchase is advised as it is doubtful of the supply will satisfy the demand.
MRS ARTHUR CILENTI
(Peter Klein's daughter)
2202 South 41st, Tacoma 9, Washington

The official organ of the American Primrose Society
The Quarterly
APPLICATION FOR MEMBERSHIP OR RENEWAL
Mrs. Orval Agee, A.P.S. Treasurer
1111 E. Wool Avenue, Milwaukie 22, Oregon.
I desire to be admitted to or to renew my membership in the AMERICAN PRIMROSE SOCIETY. Herewith I enclose dues, as checked below, which will include a year's subscription to the Quarterly.
( ) First member of the household...
( ) Three years if paid in advance...
( ) Second member (no subscription)...
( ) Sustaining Membership...
( ) Life Membership...
( ) Commercial Listings in Capitals in Roster...
( ) Overseas Membership...
P. stipulata
Kindly make checks payable to the American Primrose Society
P. subulata
P. aurea
P. simillimana

PORTLAND'S DOWNTOWN GARDEN STORE
A complete line of gardening aids
Begonias - Glads - Dahlias new arriving
PORTLAND SEED & PET STORE
204 S.W. Yamhill Street - Portland 4, Oregon
The Store with the Puppies in the Window

LIQUINOX
THE ALL-PURPOSE BLUE RIBBON FERTILIZER
Contains Yucca Extract
10-10-5
0-10-10
Pint .85
Quart $1.50
Gallon $3.95
KEIFFER'S NURSERY
Kirkland, Washington

The Northern Horticultural Society
HARROGATE, ENGLAND
This Society owns and controls gardens in Harrogate, a locality particularly favoured climatically for the cultivation of European and Asiatic primulas.
It publishes a Journal of specialised horticultural interest which will be mailed regularly to Fellows. Subscription £2. 2s. Od per year.
Further particulars, and arrangements for remittance may be obtained from:
The Secretary, Northern Horticultural Society
HARLOW CAR, Harrogate, Yorkshire, England

The Alpine Garden Society
HAS OVER 160 MEMBERS IN THE UNITED STATES OF AMERICA
Its Quarterly Bulletin, of over 100 pages, is generally recognized as one of the best specialist horticultural publications in the World.
Its Seed Distribution Scheme offers a choice of well over 1,000 kinds from which Overseas Members can annually select 15 packets (donors, 20 packets) of seed which in many cases is not otherwise procurable. In the last two lists there were between 75 and 80 kinds of Primula offered.
The Annual Subscription, dating from the 1st of January, is £1, payable to the Secretary, C. B. Saunders, Husseys, Green Street Green, Farnborough, Kent, England, but American members may find it more convenient to send $2.80 to Dr. C. R. Worth, Groton, New York, the Society's Hon. Assistant Secretary in the U. S. A., who is empowered to receive subscriptions and to issue receipts on behalf of the Society.
THEY TELL US - OVER AND OVER
NATRIPHENE
STOPS DAMP-OFF QUICK

Tablets for Trial Orders

Wonderful for Pre-emergence Damp-off

“I use Natriphene on all seed I plant and water seed pans. My rooting medium is treated after each batch. I have used this same rooting medium now over 2 years. Natriphene kills fungus and stimulates plant growth.”

Peter Klein

“Natriphene gives us security in all fungus and rot problems. We hope it is always available. We could not successfully operate without it.”

Hermance Levy - Barrhaven

In Greenhouse Cleanup it removes all scum, algae, moss, etc., and makes flats last for years.

We have found it to be specific for Anthracnose on Philodendrons.

Ship Natriphene Fungicide checked below:
Trial box makes 16 gals. fungicide for $1.00
100 tablet box makes 200 gals. at 2½ c 5.00
2½ lb. can powder for 500 gals. at 1½ c 7.50
☐ Invoice same  or  ☐ check enclosed

Signed: __________________________ Title: __________________________

Primroses  Primroses  Primroses
All the commoner kinds and some others too
HEATHS and HEATHERS  LILACS and PERNETTIA
The New “Christmas Eve” Holly Trees
(We are the only ones that have them)
Visitors Welcome  Free Price List
SPRING HILL FARM
P.O. Box 42
Gig Harbor, Wash.

PRIMROSE, PANSY, HELLEBORUS, HARDY CYCLAMEN
Seed and Plants
The Clarkes
Box 440 Q Clackamas, Oregon
On Southeast 82nd Street

“Get your BLUE WHALE HERE”

Bulk of Pete Klein’s Collected Plants
Offered for Sale
Tahoma Doubles—never offered before
Show Auriculas—P. x Kleinii
Petiolares Hybrids—Gold Laced Polyanthus
Priced according to color—size—quality
For Information write to
WILBUR GRAVES
1021 South 74th
Tacoma 4, Wash.

1958 WINTER QUARTERLY
ROCK GARDENS, by A. Edwards, formerly in charge of the Rock Garden at Kew, England. Every aspect of this fascinating phase of gardening is carefully considered, and the most exacting rock gardener will find in its pages an answer to the many practical questions he has to solve.

PLANT PROPAGATION IN PICTURES, by Montague Free, the renowned horticulturist, takes you step by step through all phases of propagation from division and grafting, layering, cuttings, bulbs and tubers, to sowing seeds and spores. Over 350 photographs make it very simple to follow. A chapter about rooting mediums and a valuable appendix containing a Propagation Note Book make this volume indispensable to every gardener.

The most comprehensive work on perennials to be published for a generation, HARDY PERENNIALS, by Alan Bloom, was written by a specialist with over thirty years practical experience. This book is for both the amateur and the professional, covering a wide range of subjects with cultural directions for both home decoration and the market. Alphabetical list of all worthwhile species as well as modern varieties, providing a full work of reference.

ENCLOSED INSTRUCTIONS AND A CARD AND YOUR BOOK WILL BE GIFT WRAPPED AND SENT TO YOU

Enclosed please find..................... for which send me Books marked below, postpaid.

( ) Rock Gardens, by A. Edwards......................... .............. $5.00
( ) Plant Propagation in Pictures, by Montague Free......................... .............. $4.95
( ) Hardy Perennials, by Alan Bloom........................................ $5.95
( ) Florists' Auriculas and Gold Laced Polyanthus, by C. G. Haysom.............. $5.95
( ) Geraniums—Pelargoniums, by Helen Van Pelt Wilson............................... $4.50
( ) The Complete Gardener, by W. E. Shewell-Cooper............................... $5.00
( ) The Modern Tropical Garden, by Kuck-Tongg...................................... $6.95
( ) Treasury of American Gardens, by Fitch-Rockwell................................... $12.50
( ) Botany, by Carl L. Wilson...................................................... $6.50
( ) Trees & Shrubs for Pac. Northwest Gardens, by Grant & Grant............... $4.95
( ) An Easy Guide to African-Violets, by William L. Mechem.......................... $1.95
( ) Year Round Gardening In The West, by John H. Hanley......................... $5.50
( ) Royal Horticultural Society Dictionary of Gardening:....... $55.00
( ) Four-volume set, 1956 edition................................................... $55.00
( ) Supplement, 1956................................................................. $10.00
( ) Cyclamen Persicum, by Walter G. Blasdale (special).............................. $3.50
( ) The Propagation of Alpinums, by Lawrence D. Hills.......................... $5.00
( ) Primulas in the Garden, by Kenneth Corsar (revised)........................... $3.50
( ) Cultivated Species of Primula, by Walter C. Blasdale (Special)............. $1.98
( ) House and Garden's New Complete Book of Gardens............................. $10.00
( ) Plants of the Pacific Northwest, by Leonid Enari (July '56)............... $3.00
( ) Beneath The Greenhouse Roof, by Charles H. Potter............................ $5.95

J. K. Gill Company will be glad to fill orders for books from any publisher.

Name
City
Zone
State

J. K. Gill Company (BOOK DEPT.)
408 S.W. Fifth Ave.
Portland 4, Oregon

FERTOSAN COMPOST ACCELERATOR
TURNS GARDEN RUBBISH INTO RICH MANURE IN 5 to 6 WEEKS
Get Fertosan from your local seedsman or hardware.

Fertosan Compost Accelerator, West Jordan, Utah
O. A. Moore, Colloidal Soil Service, College View Station,
3827 S. 52nd St., Lincoln 6, Nebraska
Clair W. Stille, 137 Bassett Avenue, Lexington 27, Kentucky
Solly's Puget Sound Seed Company, 1530 Westlake Avenue North, Seattle 9, Washington
DUNN SALES LIMITED
310 King Street East, Toronto 2, Ontario
58 Victoria Street, Winnipeg, Manitoba
140 St. Paul Street West, Montreal 1, P.Q.
CANADIAN ORGANIC DEVELOPMENTS LTD.
306 Burns Building, Calgary, Alberta
MACDONALD & WILSON LTD.
562 Beauty Street, Vancouver, B. C., Canada

Special to A.P.S. Members
Members of the American Primrose Society are given a special advantage in the purchase of Fertosan. Packs of the size necessary to reduce one ton of waste material to compost in the six-week period, sold in the State of Washington at $1 a packet, may be obtained for $0.60, post prepaid, from the office of the A.P.S. Quarterly, at 18680 Conrad Olsen Rd., Redmond, Washington. Washington State purchasers should include sales tax.

Unsolicited letter from S H A W NURSERIES, 3255 Manor St., N. Burnaby, B. C. to MacDonald & Wilson, Ltd., Vancouver, B.C.

I have been using Fertosan Myco as a compost maker with success. By chance I noticed in one of your pamphlets that it also would prevent damping-off of seedlings.

It does just that, as I used it on Greenhouse Stocks and Snapdragon seedlings which are very much subject to damp, and have not found a trace of damping-off, while the check flats which were not treated lost a considerable number of plants.

Thought you might like to know about this.
**PEST CONTROL THE EASY WAY**

The last few years have brought some amazing new multi-purpose sprays and dusts for easy, dependable plant protection. You no longer need to recognize the insect or the plant disease...just two good sprays (ISOTOX and ORTHO-RIX), a multi-purpose dust (BOTANO) and BUG-GETA pellets for snails and slugs will protect your garden all season.

**Should You Dust or Spray?**

Dust if you are looking for the easy way. It's faster, cleaner, leaves dilution mixing. Use dusts that come in handy pump-action dusters with economical refill packages, such as BOTANO Deluxe or ORTHO Rose Dust.

Spray for economy and efficiency. Saves money—you use less. Sprays last longer, stick tighter, give better coverage. Use ISOTOX Garden Spray, either alone or mixed with ORTHO-RIX Spray. This combination controls both insects and plant diseases. For handy home spraying you'll like the ORTHO SPRAYETTE—attaches to your garden hose; mixes water and spray material automatically as you spray.

**Pellets Make Baiting Easy.** For snails and slugs, simply toss BUG-GETA Pellets around your garden and get results overnight. It's best to start baiting regularly at the start of planting season.

**Ortho Weed Killers Give Complete Control.** If you're after Lawn Weeds, use ORTHO Lawn Grasson or WEED-B-GONE, contains 2,4-D. For Brushy Weeds (Poison Oak, Brambles, etc.) ORTHO Brush Killer does the job — contains 2,4,5-T. For clean Weed-Free Sidewalks and driveways use TRIOX...kills all vegetation and prevents regrowth up to 2 years.

**California Spray Chemical Corp.**

Richmond, California—Elizabeth, New Jersey—Orlando, Florida—Portland, Oregon

St. Louis, Missouri