

Primroses



Flower Shows – 1986

Vol. 44

Summer 1986

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Dear Members,

We in the Pacific Northwest of Washington and the Beaverton-Milwaukie area of Oregon have just finished our Primrose Shows. Growing plants for show was certainly a challenge for all of us this year. We had two very cold spells with warm weather in between. The snow insulated our plants during the first cold spell but blooms and tender new growth were hard hit during the second cold spell. My *P. denticulata*, the earliest of the early blooming primulas, suffered the most.

The unseasonal extra-early spring weather caused our primroses to bloom sooner than we would have liked. The last two weeks of March would have been a perfect time for our Northwest Shows. Most of the primroses usually groomed for show, such as julies, polys and early species, were at their peak of bloom. The first show wasn't until the first weekend in April in Milwaukie, Oregon. Fortunately, after that the weather turned cool once again. This helped keep the plants blooming much longer than we had originally expected and still in fine condition for most of the remaining shows. There was a nice selection of plants, both on the show benches and on the sale table, at the National Show the second weekend of April. The plants held their own for the third Saturday in April at the Washington State Chapter Show, but by the end of April the Tacoma Show was a bit short of plants. Many were past their prime blooming period, although the *P. seiboldii* made a fine display. The night before the Tacoma Show, areas around here had a very hard frost ruining many plants for show entry. It seemed our membership/support system wasn't in prime condition either, perhaps being worn out from four weekends of primrose shows. Too bad April can't be spread out into two months worth of time.

As you can see, I am all in favor of Primrose Shows. In my opinion, when the number of people seeing shows in large, then in all likelihood there will be more people getting the urge to grow primulas and perhaps becoming enthusiasts like us. This is one of the reasons many shows are held in shopping malls – easy access to the masses. A drawback with covered malls is the lighting. Most are too dark; plants aren't shown to their best advantage. With added artificial lighting true colors aren't shown either. The Washington State Chapter tried a new approach by holding their show at a new complex designed with the plant enthusiasts in mind. Good lighting – lots of room. Although it lacked the foot traffic of shopping malls, people came because they were specifically interested in primroses. It will take some time for me to see if the results from this type of show compares to mall shows.

I hope the Eastern groups have been able to have some type of show/display for the public to see this year. I was very glad to read about the study group with members of the Doretta Klaber Chapter. We will be looking forward to hearing about their monthly progress. I hope this will encourage other groups to work on similar projects, or even encourage APS members not in any local groups to form a study group of their own.

As always, keep informing the Editor of all goings on, before the fact as well as after. We all need to know what is happening in the world of primroses and about the people who grow them and care for them.

Yours truly,

Albert Ross Smith

The Polynapes Form of Polyanthus

Bernard M. Smith
England

The Leydon Botanical Garden in Holland was formed in 1687 and the following year issued a catalogue which included the first illustration of a polyanthus. It is of interest to note that at that time all polyanthus had red flowers with a yellow eye. The plant illustrated was obtained from the Botanic Garden at Oxford and as well as being red flowered, was of the 'jack-in-the-green' form and had besides a tuft of small, narrow leaves or bracts, where the footstalks (pedicils) joined the main stem.

This type of polyanthus still occurs frequently and has been confused with the Jackanapes. However the Jackanapes, whilst similar to the above, has the calyx partly petaloid and is striped with the colour of the corolla (petals). This striping is on occasion so wide as to give the effect of a Hose-in-Hose form.

An extinct form of the Jackanapes referred to by both Gerard and Parkinson is the Jackanapes-on-horseback where not only was the calyx striped but the tuft of leaves carried the same striping.

It is unlikely that the Jackanapes-on-horseback will occur again in our lifetime but it is quite possible that the Jackanapes has spontaneously occurred, and will do so again.

Since there is no 'form name' for the original plant and to distinguish it from the Jackanapes, I am calling it a Polynapes and the tuft of leaves the Polynapes tuft.

The accompanying illustration from the Leyden Catalogue is not only the earliest illustration of a Polyanthus but of the Polynapes form as well.

LUGDUNO-BATAVUS: 1507
PRIMULA VERIS HORTENSIS UMBELLATA, CAU-
LE ET FLORE FOLIOSA, MAIOR.



Primroses From Roof of World

by Florence Bellis

GARDENS

OREGON JOURNAL, SUNDAY, MARCH 2, 1941*****9

Native to the Himalayas in India on the roof of the world are three of the most beautiful, amiable and hardy primroses, growing in valleys two and three miles high, in wooded pastures and on the hills.

These primroses undoubtedly delight many a dusky shepherdess as she roams over the hills with her flocks, and when she returns in the cool of evening, perhaps she finds some of the glistening white globes of the Cashmerian primrose to place in the temple or a Buddhist shrine.

It is in the Valley of Kashmir that the denticulata primrose and its offspring, *Primula Cashmeriana*, grow in great number.

The form known as Cashmeriana is perhaps the more dainty of growth and the bright lavender color does not wander from pale mauve to deep amethyst as does the more buxom *Primula denticulata*. The pure white form of both of these primroses is really lovely and considered quite choice as they do not occur frequently.

Dusted over the stalks and leaves of both is a gold powder which is brighter and more dense on Cashmeriana. The balls of bloom are hoisted on pencil-thick stalks and

carry a hundred or more individual florets, the petals of each floret being so indented as to seem like five tiny hearts radiating around a pale gold eye.

Revives in February

Since they shed their leaves in the fall, during winter one sees nothing save a bare crown, but by February, deep in the heart of this crown appears a wide-eyed blossom or two.

Having tested the wind, so to speak, the ball of bloom begins to grow in girth as the stalk pushes up and up until at six or eight inches it stands proudly erect carrying a full-blown primrose ball.

As the stalk hoists the globe of blossoms, the leaves begin to grow and are oblong, deeply ribbed on the under side with a slightly tooth-like edge. From this last characteristic it takes its name, *denticulata*. It is not known whether Cashmeriana is a distinct form of *P. denticulata* or a hybrid.

Higher in the Himalayas, among diamond-like ice falls and glittering crevasses, the astonishing rosy-carmine of *Primula rosea* adds its beauty. Friendly, and wishing to please, it is just as content in the lower altitude of our temperate climate as in its native heights.

For a plant must grow at an altitude of at least 12,000 feet in the steamy valleys and slopes of the Himalayas to be happy in a northern situation of less than 1000 feet.

Rosea has but one habit in common

with *Cashmeriana*. It starts to bloom before the leaves appear. Otherwise it is entirely different.

The stem is shorter and is topped with a half dozen or more large rose-pink blossoms. When the leaves do appear they form a glossy, compact tuft which is a perfect holder for so bright a candle.

Beauty From Sikkim

Close to Kashmir, just south of Tibet, is the Indian principality of Sikkim which has furnished us with one of the loveliest members of the family. Known intimately as the Sikkim cowslip, it is formally called *Primula sikkimensis*.

Springtime brings the leaves up from the crown, long, oval, toothy ones that spread out and up like an open fan. From the middle of this luxuriant foliage rises a tall, graceful

stem at the top of which the plant hangs out in June, wide, pendant bells in the softest straw-yellow imaginable.

Each bell swings clear of the main stalk held by its own tiny, arching stem. Wax-like on the outside, each bell is dusted with white powder within and has a delightful sweet-and-clean fragrance.

All three of these Himalayan primroses are easily grown and like a situation with more shade than sun, deep soil with plenty of nourishment in it, unstinted moisture when the rains cease and, above all, good drainage so that their crowns will not moulder off in the winter.

These three treasures from India add their just share of beauty to the belt of primroses that girdles the world.



Primula denticulata

ANNOUNCING THE

FIRST INTERNATIONAL PHOTO PRIMULA SHOW

With cash prizes in all Divisions and a
substantial award for

BEST IN SHOW

Rules of the Show

(a) 5 x 7 or 8 x 10 glossy black-and-white prints (unless otherwise noted), as many entries as desired, may be submitted by anyone, member or not, in any or all of the classes to be listed. Photos may be garden or potted subjects. Plant need not be in bloom, though in most cases that would be expected.

(b) Each class will be judged separately and prizes awarded as indicated in the Schedule. Decision of the judges is final.

(c) To be eligible for a prize, the print must become the property of the Quarterly, with full rights to publish at the discretion of the Editor. Winning photographs will, of course, appear in an article reporting the Show.

(d) On the back of each photo must appear as many of the following as are appropriate: Division and Class, correct Latin name of the subject (plus common name if appropriate), name and address of the grower, name and address of photographer (if different), description of the plant (history or story of it), parentage of crosses or hybrids, and so on.

THE SCHEDULE

DIVISION I: VULGARIS (ACAULIS)

- SECTION A: An overall view of a plant, regular or miniature.
- SECTION B: A closeup, showing some distinctive feature of the blooms – jack-in-the-green, hose-in-hose, and so on)
- SECTION C: A double, either overall or closeup view, clearly showing the doubling.
- SECTION D: A color print of any of the above.

First award for each SECTION – \$5

Best in the DIVISION – \$15

DIVISION II: POLYANTHUS

- SECTION A: An overall view of a plant, regular size.
- SECTION B: A closeup, showing some distinctive feature of the blooms – jack-in-the-green, hose-in-hose and so on).
- SECTION C: A double, either overall or closeup view, clearly showing the doubling.
- SECTION D: A laced polyantha
- SECTION E: A miniature (under 6").
- SECTION F: A color print of any of the above.

First award for each SECTION – \$5

Best in the DIVISION – \$15

DIVISION III: JULIANA HYBRIDS

- SECTION A: An overall view of plant, cushion form.
- SECTION B: An overall view of plant, stalked form.
- SECTION C: A closeup, either form, showing some distinctive feature of the blooms.
- SECTION D: A double, clearly showing the doubling.
- SECTION E: A color print of any of the above.

First award for each SECTION – \$5

Best in the DIVISION – \$15

DIVISION IV: OTHER VERNALES

- SECTION A: *P. elatior*, or hybrid thereof
- SECTION B: *P. veris*, or hybrid thereof
- SECTION C: A Garryard
- SECTION D: A Cowichan
- SECTION E: A color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION V: GARDEN AURICULAS

- SECTION A: An overall view of a plant, in pot or garden.
- SECTION B: A closeup, showing some distinctive feature.
- SECTION C: A double, clearly showing the doubling.
- SECTION D: A color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION VI: SHOW AURICULAS

- SECTION A: Any edged show, overall or closeup.
- SECTION B: Any self show, overall or closeup.
- SECTION C: Any alpine show, overall or closeup.
- SECTION D: A color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION VII: AURICULATE SPECIES

- SECTION A: Any x *pubescens* hybrid.
- SECTION B: *P. marginata*, in any of its forms.
- SECTION C: Any other species in this group.
- SECTION D: Any hybrid, natural or otherwise, in this group.
- SECTION E: A color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION VIII: PROLIFERAE (CANDELABRA)

- SECTION A: An overall view of any species in this section.
- SECTION B: A closeup, any species in the group, incl. doubles.
- SECTION C: Any hybrid, natural or otherwise, in the group.
- SECTION D: Any color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION IX: JAPANESE PRIMULAS

- SECTION A: *P. seiboldi*, overall or closeup.
- SECTION B: Any other species native to Japan, close or over.
- SECTION C: Any color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION X: EUROPEAN PRIMULAS (Except those covered in DIVISIONS I, II, III, IV, V, VI, VII)

- SECTION A: An overall view of any species in this group.
- SECTION B: A closeup, any species in the group, incl. doubles.
- SECTION C: Any hybrid, natural or otherwise, in the group.
- SECTION D: Any color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION XI: ASIATIC PRIMULAS

- SECTION A: Any *Petiolarid* species, closeup or overall view.
- SECTION B: Any *Soldanelloid* species, closeup or overall.
- SECTION C: Any *Nivalid* species, closeup or overall.
- SECTION D: Any other asiatic species or hybrid not covered elsewhere.
- SECTION E: Any color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION XII: AMERICAN PRIMULAS (North or South)

SECTION A: An overall view of any species in this section.

SECTION B: A closeup view of any species in this section.

SECTION C: Any color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION XIII: NOT HARDY PRIMULAS

SECTION A: An overall view of any primula in this group, species or hybrid.

SECTION B: A closeup view of any species or hybrid in this group.

SECTION C: Any color print of any of the above.

First in each SECTION – \$5

Best in DIVISION – \$15

DIVISION XIV: ANY PRIMULA(S) PHOTOGRAPHED IN THE WILD

SECTION A: An overall view showing the plant in its setting.

SECTION B: A closeup, with detail, or the plant shown in SECTION A above.

SECTION C: A color print of either of the above, but revealing the natural setting.

First in each SECTION – \$7.50

Best in DIVISION – \$20

DIVISION XV: PHOTOS OF GARDENS, LANDSCAPES, FEATURING PRIMULAS

SECTION A: An overall view of the planting, black and white.

SECTION B: An overall view of the planting in color, print.

First in either SECTION – \$7.50

Best in DIVISION – \$20

DIVISION XVI: ODDITIES, RARITIES & OTHER

Arrangements, troughs, let your imagination be your guide.

Best in DIVISION – \$20, color or black and white

BEST IN SHOW – \$100 cash, or a life membership – winner's choice.

All entries are due at the Editor's address not later than October 15, 1986. Winners will be announced in the Winter, 1987 issue. Enter as many photos as you wish. And good luck!

Your Editor notes that number of generous people have donated prize money for this show, some as much as \$150. For this we are very grateful and offer our thanks. However, as of date of publication we have only about 3/4 of the needed funds and would be happy if a good number of you would make donations of \$5, \$10, \$25 – whatever you can spare. This money is fully tax deductible. Your name will be included in this list of donors when results are announced.

Primula juliae and Her Children

Kris Fenderson, S. Acworth, NH
Rosetta Jones, Kent, WA

In the course of recent research I found it difficult to establish a valid name for the commonly cultivated and very attractive race of hybrids involving *Primula juliae*, *P. elatior*, and *P. vulgaris*. Plants of this group are often encountered in commerce as 'Juliana' hybrids. In seeking an early published usage of this name I learned several things about the history of this group which may be of general interest.

Primula juliae as is well known was discovered in the Caucasus by Madame Julia Mlokossjewich on May 20, 1900. The plant was described from this initial collection by Professor Kusnetzow at the botanic garden of Dorpat (now Tartu) in Estonia. Plants of it were sent by him to Oxford, England in 1911 and to Kew in 1912 where they flourished and were soon distributed. From that time on, in both England and Europe, extensive crossing with other Vernales (and some non-vernales) was undertaken.

In February of 1920 Dr. Rosenheim exhibited to the Royal Horticultural Society the results of his deliberate crosses that he had made in the spring of 1917 of *Primula juliae* and *P. elatior*. He described the results in brief detail and noted characters of the F₁ generation which flowered for the first time in 1919.

In 1918 W. Ingwersen described the

spontaneous (?) hybrid 'Crispii' of apparently the same parentage; it had received an Award of Merit from the Royal Horticultural Society in 1916.

About the same time *Primula juliae* had also entered cultivation on the continent of Europe and similar hybrids were soon forthcoming. George Arends the well known nurseryman of Ronsdorf, Germany first obtained *Primula juliae* in 1913, flowered it in 1914 and first offered hybrid offspring as a mixture *P. x helenae* (*P. 'Acaulis'* in all color forms x *P. juliae*) in 1920. 'Purpurteppich' (Purple Carpet) 1921, 'Edelstein' (Gem) 1925 and 'Jewel' (Jewel) 1925 were the first named cultivars; 'Blaukissen' (Blue Cushion) and 'Schneekissen' (Snow Cushion) appeared later (1931) from back crosses with *P. 'Acaulis'*.

Contemporary with these efforts Professor Zeman of the Austrian Dendrological Society's garden at Pruhonitz (now in Czechoslovakia) created a similar race which was described as *P. x pruhoniziana*. The European crosses soon found their way to Great Britain and the names of many were anglicized and their continental origins forgotten. A plant of the name *P. x pruhoniziana* is still available. Whether it is Professor Zeman's cross or not is open to question.

Hundreds of hybrids have been

grown and named since this lovely little jewel of a primula was introduced.

By 1928 eighteen cultivars of this race were listed by Ingwersen. As much subsequent hybridization or selection of spontaneous seedlings took place the lines between the three strains became blurred. For historical purposes the three groups may be summarized as follows: *P. 'Crispii'* Ingwersen for the plants of early English origin including those hybrids

involving *P. elatior*; *P. 'Helenae'* Arends for those hybrids of *P. juliae* and *P. 'Acaulis'* of George Arend's introduction; and *P. 'Pruhonicensis'* (Zeman) Bergmans for the plants of central European origin.

The term *Primula 'Juliana'* appears to be of a more recent origin and the first application (unfortunately as a *nomen nudum*) that I can find after an admittedly cursory search is in the Gardener's Chronicle of 1922.

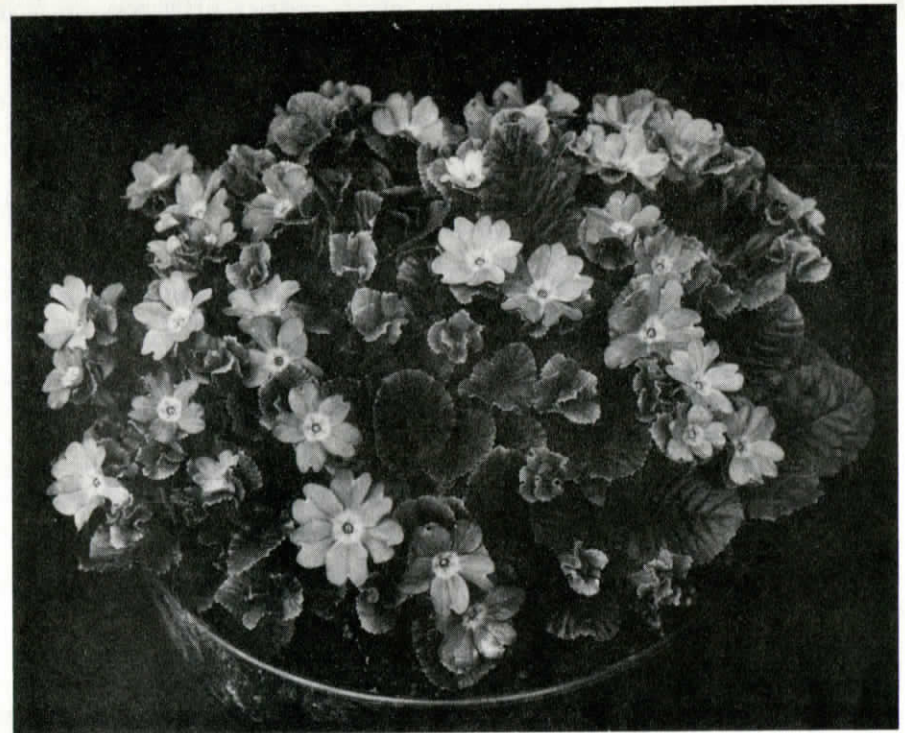
In the list that follows no attempt has been made

1) to sort into the groups above.

2) to be complete. (That would be impossible, anyway.)

The following list is from Lou Roberts in the January 1945 APS Quarterly:

- Wanda – Dwarf, large violet-purple, bronze foliage.
Wanda, Borsch var. – Wanda sport, 3 weeks earlier (Fred Borsch, Oregon)
Wanda Hose-in-hose – clear violet duplex blooms. (England)
Helenae, early, burgundy-purple, smaller flowers, smaller than Wanda.
Pam – Ruby crimson flowers on short stems, bronzed foliage, neat and distinct
Chief Multnomah – Bronze foliage, large flowers of reddish purple (Borsch)
Gloria – Magnificent magenta-crimson flowers with yellow eye.
Helen Muller – Purple-blue flowers in large clusters. (Pfitzer, Germany)
Norton's Hybrid – Purplish crimson.
Edelstein – Red flowers, a Helenae seedling. (Germany)
Primrose Lodge – Polyanthus form, rich crimson flowers. (Illinois)
Valiant – Deep burgundy blossoms. (Nevill, Washington)
Sonny Boy – Bright rosy-purple flowers with yellow eye. (Brosch)
Nevill's Hybrid – A fine purple, free flowering. (Nevill)
Lakewood – Large burgundy blossoms covering bronze foliage. (Borsch)
Crimson Glow – Cross between Chief Multnomah and Primrose Lodge, red poly.
(Borsch)
Praecox – Red, early. (England)
Vulcan – Velvety blood-red. (Clarence Elliott, England)
The Pilgrim – Crimson red, orange eye. (England)
Lingwood Beauty – Ruby red. (England)
Dorette – Miniature polyanthus, unusual rose-henna bloom. (Broetje, Oregon)
Crispi – Bright burgundy, large, early.
Kinlough Beauty – Luminous rose pink with golden overlay; Irish polyanthus.
Dusty Rose – Dark pink
Sparkler – Flame hose-in-hose. (England)
Little Gem – Cushion of bright cherry red. (M. B. Stewart, Washington)
Ayleen – rosy-lilac blossoms cover plant. (Nevill, Washington)
Springtime – Tiny, soft rose-mauve polyanthus. (Verwanis, Holland)
Margo – Large, pure carmine flowers, grayish foliage. (Roberts)
Millicent – Distinct crushed-strawberry shade. (England)



Peter Klein's lavender juliana – so much like *juliae*.

- Rosea – Mound of soft pink blossoms, early.
Dusty Pink – Delicate muted pink.
Dainty Miss – Miniature poly. lighter shrimp-pink than E. R. Janes. (Link, Ore.)
Mrs. McGillivray – Dainty orchid polyanthus form. (England)
Mrs. King – Mauve pink.
My Irish Girl – Lavender seedling of Springtime. (Borsch)
Roberta – Clear mauve flowers. (Roberts)
Blaukissen – Not blue as name indicates. Flowers a rosy lilac.
Springtime – Compact habit with large lavender-pink flowers. (Borsch)
Kay – Thrifty grower, bronze foliage, flowers bright blue.
Bunty – Bronze foliage covered with fine, deep blue flowers. (England)
Dorothy – Charming little Oxlip form with primrose yellow florets. (England)
Schneekissen – Large snow-white flowers. Award of Merit, 1937 RHS. (England)
Alba – Believed to be a white form of *P. juliae*, small bluish-white bloom
Lady Greer – Dainty polyanthus with heads of cream flowers, usually edged with blush shading.
The following list of julianas is from Genders' and Taylors book: "Primroses and Polyanthus". Some of these are listed above, but I will list them again because of the more explicit descriptions.
Betty Green – A new Dutch variety, freely-produced vivid claret-red blooms of medium size, attractive rich apple-green foliage.

Blue Horizon – Found in a Kentish garden; introduced by Six Hills Nursery. Habit like Wanda (from which it is a sport), blooms clear sky-blue, freely produced; it blooms forever. What a gem it is.

Bridget – Mauve-pink with large yellow eye; very late and very dwarf habit; an uncommon primrose, and one of the last to bloom.

Cherry – A new primrose, like E. R. Janes in habit, but with bloom of an intense, cherry-red color.

Crimson Cushion – A delightful primrose for the rockery, of trailing habit, almost like Purple Cushion, but with flowers a rich red.

Crispii – A lovely primrose, covering itself with delicate mauve-pink blooms.

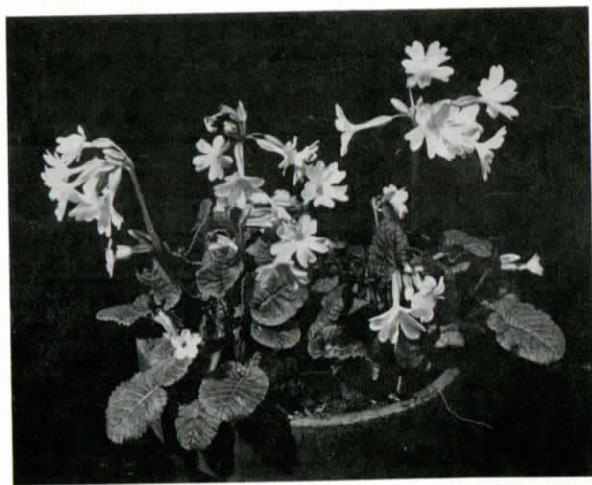
Dinah – A gem from Holland, eight weeks in bloom, blooms again in late autumn. Dainty blooms like real velvet, burgundy crimson and having a unique olive-green eye.

Dorothy – Rare pale-lemon-yellow; excellent habit; long flowering season; very strong grower; delightful frilled petals. A really lovely primrose which may flower again in autumn.

E. R. Janes – A perfect rock primrose, showing almost no foliage when in bloom – just a mass of salmon-pink blooms, blushed orange, slightly scented, and held in clusters to the sun. An older variety, but what a beauty. Acaulis type. (England)

Jewell – A very small, free flowering crimson-purple, ideal for the rockery. A little gem among primroses.

Many of these plants are no longer available, but the list shows what has been done, and could be done again. When I review all these wonderful hybrids and others I have seen, or grow myself, I can't help but wonder why they are not more abundant, as they are easy to propagate and are usually hardy. The fault must lie with the growers and retail outlets that do not promote them, as I am sure most of the public doesn't know that such a super garden plant exists in such variety.



Primula x juliana 'Dorothy'

What's New?

Edited by Joe Dupre
Anacortes, WA

Item:

CHANGING pH OF POTTING MIXES

Many potting mixes are quite acidic (pH 3.5-5.5), because acidic peat is a major component of these mixes. To raise the pH to a level suitable for most plants, dolomite, calcium carbonate (lime), or calcium hydroxide (hydrated lime) are generally used. A rule of thumb that can be used is the following: adding about 8 pounds of dolomite per cubic yard of potting mix will raise the pH by one unit (note: twice as much dolomite will not raise the pH by two units – the pH scale is not additive.) Lime is slightly more efficient than dolomite in raising pH. hydrated lime can be

substituted as follows: one teaspoon per gallon of water added to the potting mix (enough for thorough moistening) will raise the pH by a little more than half a unit; if necessary, you can do this again after two weeks to raise the pH higher – but don't use more than one teaspoon per gallon each time, and be careful to rinse off any of the solution that gets on plant leaves.

Occasionally, the pH of potting mixes can be too high. If the pH is 7.5 or above, you can add about one half of a teaspoon of sulfur to each 6" pot. The sulfur can be applied as a drench or in granular form.

The table below shows the effects of liming materials on pH of several potting materials.

Medium Ingredients	Initial pH	After 3 Weeks			
		With Dolomite (lb/yard ³)		With Lime (lb/yard ³)	
		3.5	14.0	3.5	14.0
Sand (S)	4.3	7.4	7.5	7.7	8.9
Canadian Peat (P)	3.7	5.3	7.0	5.1	7.2
Pine Bark (B)	3.7	5.7	6.7	5.5	6.8
Perlite (Per)	4.8	7.8	8.0	7.8	7.9
P-S (1:1)	3.8	5.8	7.1	5.7	7.5
P-S (3:1)	3.7	5.1	7.1	5.1	7.3
P-B (1:1)	3.6	5.2	6.8	5.0	6.8
P-Per (1:1)	3.8	5.9	7.1	5.3	7.3
P-S-B (1:1:1)	3.8	5.7	7.0	5.9	7.4
P-S-Per (1:1:1)	3.9	6.6	7.1	6.2	7.0
Metro-Mix 300 (TM)	4.4	6.9	7.3	6.8	7.6
Metro-Mix 500 (TM)	4.5	6.8	7.3	7.0	7.7

Reference: R.T. Poole, "Changing the pH of a Potting Medium", *Foliage Digest* 8 (7), July 1985, 6-8. (The Foliage Foundation, P.O. Box Y, Apopka, FL 32704.)
(Editor's Note: 7 pounds of lime will raise the pH of a yard of sawdust about 1 point.)

Item:

LIST OF BOTANICAL CLUBS AND NATIVE PLANT SOCIETIES

More than 60 U.S. clubs and societies are included in this list, available for \$1 postpaid from the New England Wild Flower Society, Inc., Garden-in-the-Woods, Hemenway, Rd., Framingham, MA 01701.

Item:

ONCE AGAIN: COMPOST 'ACTIVATOR' INOCULUMS ARE UNNECESSARY

Over the years, several studies of the usefulness of adding microbial inoculums (often advertised as "activators" or "starters") have produced negative results. We know of *no* objective study concluding that such inoculums are beneficial. The most recent report on the lack of utility of inoculums, comes from Rutgers University researchers, who found that backyard compost piles don't need *any* special sources of microorganisms. Yet the ads for compost starters continue to appear . . .

Reference: M. B. Adams, "Composting Myths", *Horticulture* 64 (8), August 1985, 6, 8. (Horticulture Associates, 755 Boylston St., Boston, MA 02116.)

. . . AND, SPEAKING OF MICROBES . . .

Here's information on microbial cover crops, Trans-National Agronomy (470 Market St., S.W., Sutie 101, Grand Rapids, MI 49503) is marketing *algae* for use as a cover crop to produce soil flocculating chemicals which can improve soil structure. Apparently, these chemicals are mainly polysaccharides, which provide structure to sandy soils and help aerate heavy clay soils. According to TNA, the algae also add soil humus and reduce soil moisture losses (by forming a living mulch layer).

A similar algae cover crop has been tested in the Pacific Northwest for over 10 years. Once established, the algae can remain in the soil for several years.

For more information, contact TNA.

Reference: Anonymous, "A New Concept in Cover Crops for Farming", *Acres, U.S.A.* 15 (7), July 1985, 28. (P.O. Box 9547, Raytown, MO 64133).

Item:

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Item:

NOTES ON SABADILLA

In the January 1985 issue of *HortIdeas* (page 7), it was noted that the botanical insecticide sabadilla, sold by The Necessary Trading Company 317 Main St., New Castle, VA 24127; (catalog normally \$2, refundable with first order) was claimed by a competitor of NTC to have low potency. Recently, NTC sent us the report of an independent testing laboratory showing that the sabadilla sold by NTC (as "Red-Devil Dust") contains a *higher* percentage of active ingredients (alkaloids) than claimed by NTC. The "Red-Devil Dust" sold by NTC has been stored for several years, and sabadilla's toxicity to insects actually *increases* over time.

(Editor's note: If you write NTC, please mention "Primroses" too. We want them to know we are here.)

Beautiful, Little-Known Cusickiana

(Herewith a composite article, two brief pieces on this most magnificent of American primulas. The first is by Urben Kubat of Milwaukie, OR, and recounts experience with the plant in the Northwest lowlands. The second, by Kenneth Charles Corsar, is a much older piece – a reprint from a late 50's article in the *Quarterly*. Hope these will inspire some of you to try this difficult plant again. Good Luck!)

(1.) *Primula Cusickiana*, the crown jewel of the Northwest primula family, was discovered in the Willowa Mountains in Oregon in the year 1886.

This elf-like jewel blooms in the month of May in violet tones with sweetly-scented violet fragrance. What a glorious sight to behold!

Growing, usually, on the steep rocky hillsides at an elevation of 3500 to 6000 ft. in very scant soil among the rocks, the plant comes to life and bloom as the melting snow trickles around its small tufted base.

The Cusickiana prefers a southern exposure growing with its companion plants, dodecatheon, sisyrinchium,



calochortus, and larkspur.

By August the seeds are ripening. The plants finish the blooming cycle producing the farinate seed pods which resemble tiny tulip blooms on three to five inch stems.

One very important element in the growth of the *Cusickiana* seems to be *good drainage*. Though thunderstorms are a frequent occurrence throughout the summer months, the areas of its growth are consistently dry and rocky between showers. Drainage is swift and complete.

In the Portland area two wild flower lovers have had the plants bloom in a pot outdoors in semi-protected areas for one year. My experience was planting in a raised bed in good soil and the first season blooms were prolific. The second year plants were small and no bloom. My conclusion was, insufficient drainage.

In their natural habitat the plants are kept cool and moist under snow-cover all winter. During and following bloom, plants in captivity should be watered two to three times a week during the hot summer months. This corresponds with the natural habitat.

When planting in the open the plants should be covered during cold weather with straw or fir boughs to compensate for the lack of snow cover. Natural precipitation is needed.

After studying and observing this very elusive plant for several years I have come up with what I hope will be a sure method of transplanting it from the wild with success. I will be using this method in my own garden this year.

In a bed, make a foundation of two inch large rocks at a depth of 18 inches below ground. At ground level add pea-gravel to a depth of 3 inches, and 3 inches of soil on top of the pea-gravel. Roots of plants should rest directly on the pea-gravel with broken

rocks placed between plants. A south or west exposure is suggested for the NW area.

The soil mixture should be equal amounts of garden soil and coarse sand with a small amount of well rotten cow manure.

Ripe seeds may be collected in the wild, stored in glass jars in the refrigerator. Seeds need some frost to germinate.

(2.) In that section of their monograph on the genus *Primula* published in 1948, W. Wright Smith and H. R. Fletcher were unable to record the successful cultivation of *Primula Cusickiana* in Europe. Since that year, however, this species has been brought to flowering stage at least three times in Britain, first by Mrs. Crewdson of Kendal, then in 1954 by myself, and in this present year again by Mrs. Crewdson and myself.

The plants now in cultivation are collected specimens from the Willowa Mountains in the State of Oregon, sent to this country by air by Mrs. A. C. U. Berry, of Portland, Oregon, who has flowered this species under a fir tree in her garden. She reported that they had been found growing on hillsides, wet from the melting snow in springtime but baked dry by the fierce sun of the summer. Further, it was thought that no water was available to the plants during the winter months because of the severity of the frosts in those parts. To reproduce anything like these conditions in a British garden is, obviously, out of the question, and careful pot cultivation is the only system I have found successful. As no information on the management of *P. Cusickiana* was available, the method of trial and error had to be resorted to, and as a result of experiments I lost fifty per cent of the plants sent to me before I found a method of cultivation.

Primula Cusickiana belongs to the small section *Parryi*, all of whose members are natives of North America. Small in all its parts, this species throws up scapes four inches tall, each bearing an umbel of four deep violet flowers with a strong violet scent. Once the petals have been shed, and the seed capsules start to develop, the scape extends until it is about twice its former length; at the same time the leaves begin to die down. Growth, flowering, seed production, and final disappearance, occur within a period of five months.

If there is any secret in the cultivation of *P. Cusickiana* this lies in the amount of water to be given during

the period of dormancy. Complete drying out must never be permitted, yet over-watering will prove fatal; what may be described as a happy medium must be observed, but experience alone will dictate what this is. As to soil; I grow my plants in a rich, gritty mixture to which stone chips have been added; ample drainage is provided so that stagnant moisture is never present in the soil. The plant's growth is very slow indeed, so overpotting should be avoided. Repotting, when this becomes necessary, is best carried out immediately after flowering; in other years a top-dressing with a good rich mixture is advised.

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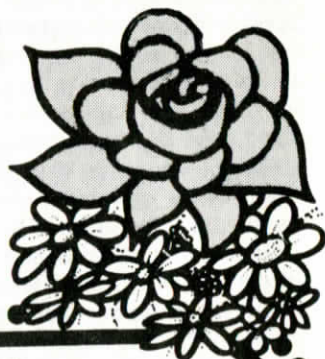
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Polyanthus – Blue Triumph

R. M. Trezise
Bridlington, England

The pleasure of growing the Genus Primula in its widest sense is well known to all enthusiasts, and in common with all other enthusiasts I am never able to decide whether it is Primroses or Polyanthus that gives me the most pleasure. However, in the spring of 1984 I sowed seeds of Suttons Blue Triumph Strain. These seeds may be obtained from Messrs. Suttons Seeds Ltd., Torquay, Devon, TQ2 7QJ, England.

These seeds were sown in early April in a mixture of peat and sharp sand in a seed box covered with a sheet of glass to hold the moisture in, and placed at the foot of a north wall. I use two of peat and one of sand, and Phostrogen for feed. In due course a reasonable germination was achieved and the small plants were then transferred to the open garden where they continued to make steady growth. By late autumn they were a reasonable size and a few came into bud and bloom. They settled down for winter, and in the spring of '85 began to grow on again. At this time they were fed on Bonemeal. The strongest looking plants were placed under cloches with a view to keeping birds from picking out the flower buds.

These plants were grown for two main reasons: –

1. Good strong blue colours are difficult to find, and
2. The British National Primula and Auricula Society holds a special class for the showing of Blue Polyanthus.

In any event, two fine looking blues showed color well before the show and I began to consider these two

plants for the show. One of the plants was a good solid blue with a yellow star eye and a touch of yellow/orange in the centre. This made a good colour combination, but unfortunately the plant failed to develop either big enough leaves or a long enough stem to make showing it worthwhile. It may develop better over the next year or so. The other plant grew well and was good looking in all respects – a good solid blue, clear yellow star, strong healthy foliage and of the right height (that is, the flower stems stood 10" tall). This, then, had to be the plant to take to the show.

For some 3 or 4 days before show date, the plants had all been well-watered in the early evening and the cloches replaced. At 5 o'clock on the morning of the show, I dug up and potted the plant into a 6" pot with peat and sand, top dressed the pot with gravel and took it on a three-hour drive to the show. It arrived in first class condition and was duly staged, and dressed. After waiting for the judging to finish I returned to the Hall to find that it had won first prize in its class.

This would have been a nice point to complete the story, but as always with gardening there are often problems yet to come. As the year progressed, I noticed more and more plants looking sickly and not responding to either watering or feeding. Lifting a few of these plants soon showed that the cause was Vine Weevil. By the time I realised what it was, the garden was well infested and I was in the unhappy state of being able to look

along the rows of Primula and Polyanthus and see at a glance which plants were badly infested. The outcome of this was that by the end of 1985 I had to throw out over six hundred plants. Many of them were quite rare and unusual, including all my double primroses. There appears to be no known cure for Vine Weevil apart from DDT which is now unobtainable, or Aldrin which is an unpleasant chemical to use and rather dangerous, though it is effective against the pest.

Those of you who have read this far may be wondering what happened to the prize winning blue. Well, having discovered the weevil problem, I divided the plant into about six pieces, trimmed the roots and replanted the pieces in the garden, making fair-sized holes and filling them with a mixture of peat, leaf mould, sand and Aldrin. So far, April

1986, all these young plants are growing, but remain fairly small. I remember reading somewhere (or being told) that one of the side effects of the use of Aldrin with certain plants is that it may have a tendency to inhibit growth for a period of time. This may be the reason these young blue polyanthus have not made the amount of growth that I would have hoped. On the other hand we have had a long, cold winter, February 1986 being about our coldest month in forty years, so this may also be a good reason for the plants not growing as quickly or as well as I had hoped. As the plants look at the present time, they will not be ready for show in 1986. It remains to be seen whether the plants will continue to survive the ravages of the weevil and make show size plants for spring 1987. As always, for showing the answer is to look a year ahead, at least.



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TARGET: 1991

Richard L. Critz, Ed.

In 1991 the American Primrose Society will pass an important milestone - the fiftieth anniversary of its founding - and a number of members (notably Herb Dickson, many times former president and presently 'grand old man' of the Society) are thinking about an appropriate way to mark the occasion.

Of all the ideas that are being considered, the most exciting by far is this: to hold a World Primula Conference and Festival in Portland, OR, the city of APS's founding.

What an appropriate idea! There have been four primula conferences to date - in 1886, 1896, 1913 and 1928 - all under the auspices of the Royal Horticultural Society in London.

Before the extensive plant-hunting expeditions in the Himalayas and Southeast Asia began around 1850, the Primulas were thought to be a fairly small botanical group, culturally easy, well-understood, and adequately covered, taxonomically, by the original Linnaean system. But the flood of new species described or sent back by Farrer, Forrest, Kingdom-Ward, Ludlow, Rock, Sherriff, Wilson and many others soon made it apparent that an entirely new way

would have to be devised to describe and to cultivate what had become one of the most extensive and rewarding of ornamental horticultural genera. The Conferences were conceived as a way to fill that order, and they succeeded brilliantly. The first three gatherings (especially that in 1913) brought together a great deal of information and advanced scientific understanding of primulas. All the while, the exciting flood of new species discoveries and their presentation/introduction continued unabated. At the 1928 Conference, Smith and Forrest, in their report, listed more than 400 species and 200+ more varieties and subspecies.

A paper codifying all this data into one comprehensive classification system was finally presented by W. W. Smith and Sir H. Fletcher during the great war in the 1940s. This system has been in use ever since, and has served well.

However, new factors have entered the picture. New geographical areas (like Nepal) have been opened. As many as 100 new species have been added to the list. Important studies on the Russian, Chinese, Turkish and other flora have been written, raising a host of new questions. New

techniques of studying biological relationships (like chromosomal count, etc.) have been developed, which shed abundant new light. But more important than any of these, the problem of how to grow these charming plants has never received satisfying, systematic attention. And promising new cultural methods *are* being devised.

In the light of all this it would seem that a new Primula Conference could be of great benefit to all those interested in this fine genus. Possible changes or refinements in the classification system would be an important topic for conference consideration. A review of current studies utilizing advanced techniques, and what they are revealing (especially as regards hybridization) would be another. The possibilities and limitations of tissue culture for propagation would be a third. Japan and the ingenious Japanese horticulturists might, besides contributing to the former topics, bring us insights into more successful garden culture of the plants. And of course, mainland China, native home of perhaps more individual species of primula than any other country, is available and eager to participate, as it has not been for 40 or more years.

Your Editor has been in correspondence with the powers that be in the Royal Horticultural Society, and has

been assured that the RHS will cooperate fully and enthusiastically in planning, carrying out and promoting the proposed 5th World Primula Conference, which will be the first ever held outside England.

Besides the Conference itself, we could do many other things. If the timing is right, there might be a First World Primula Show – one to recreate the early spectacular primrose shows in Portland. That most excellent, but now unfortunately out of print, *Pictorial Dictionary of the Genus Primula* could be reissued – perhaps as a color picture book, doing for primula growers what the marvelous new Timber Press book *Conifers* by van Gelderin and van Hoey Smith is doing for lovers of evergreens.

And finally (though one never knows what the years will bring) one of the original founders of the APS – Mrs. Florence Bellis – is still very much alive and active. She has an important new book scheduled for publication this coming Fall. A 50th Anniversary celebration would be an ideal time and place to honor her.

Well, what do you say, member or friend of APS? Would you like to see this event take place? Can you and will you help? Please write to me about it – share your ideas and reactions – and let's get things moving towards a really big, and important, show!

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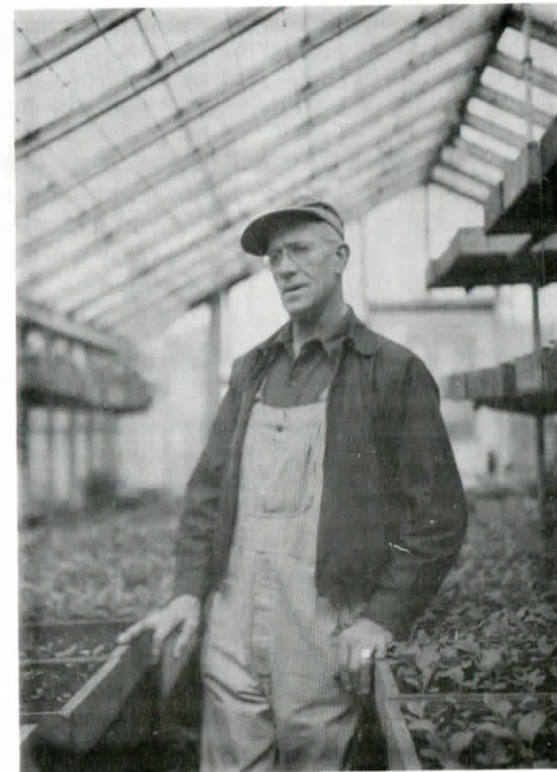
A Voice From the Past Cultural Notes From Peter Klein

Recorded by Hazel Keller

(These notes were taken from time to time at Tacoma Primrose Society Meetings at the time when Peter Klein was their hybridizing chairman).

SEEDS: Use a seed disinfectant such as Arasan or Semesan with your seeds. Disease is easier to prevent than control.

Fill your flats with soil so there is no dead air in corners. To prevent wilt in seedlings – sprinkle transplants with a solution of potassium permanganate – 1 oz. to 5 gals. of water. Be sure to water your flats in the morning with tepid, not cold water – so the plants will be thoroughly dry before sundown. Do not water them in full sun. After fertilizing seedlings sprinkle with clear water to wash fertilizer from leaves. Transplant seedlings when second pair of true leaves appear.



Peter,
posing

Rotate plantings yearly. If that is impossible change at least part of the soil around plants to obtain the same results.

Use a good drench of fernate or captan or soil where plants have been killed with frost – 1 oz. to 3 gals. of water.

After first frost mulch plants with dry straw. As season advances add more straw.

Prune roses in March to 5 outside buds. Dust entire plant with sulfur. Give a dressing of lime in November. Also lime the lilacs.

Remove all dead leaves and waste material from the floor and benches of the greenhouse and place on the compost pile. To speed decomposition use 7 parts sulfate of ammonia, 6 parts lime and 2 parts super phosphate – Mix well and soak the material. Fertesan is a fine ready-mixed material.

Use 1 part 37% formaldehyde to 50 parts of water to wash pots and greenhouse benches. Also spray it under the benches. Use parathion for mealy bugs on greenhouse primroses.

A GOOD POTTING MIX (Merton's Mix)

7 parts loam	1½ oz. horn meal
3 parts peat moss	¾ oz. ground limestone
2 parts sand	¾ oz. murate of potash
1½ oz. superphosphate	Mix well

In baiting for slugs remove both ends of a tin can and hide the bait inside the can. Be sure to keep bait available as the slugs never give up.

Bank the soil around the outside of your hot beds to conserve heat.

FAIRY RING: Use permanganate of potash – 1 oz. to 1 gal. of water. Soak area every 14 days until the condition is controlled. The same solution is helpful in control of fungus on benches and floor of the greenhouse.

Sodium chloride will kill wild morning glories. 1 oz. to 1 gal. of water.

Saline solution will kill blackberry vines. Or use salt dry.

Use copper oxide – 1 oz. to 3 gals. water for dampoff and stem canker.

Dust with sulfur for mildew, and avoid drafts in the house.

Spray with bordeaux mixture for leaf spot.

For aphids or plant lice spray with nicotine sulphate or dust with pyrethrum or rotenone.

Dust with rotenone for flea beetle.

Root maggots – water well with nicotine sulphate solution – 1 tsp. to 1 gal. water, or use aldrin.

Give 1 tbs. salt peter in 1 gal. water to roses during May to improve foliage texture.

Apply 1 teaspoon of borax in 1 gal. water to rhododendrons in spring or fall, or both.

While sweet peas are in bud give 1 tbs. nitrate of soda to one gallon of water to increase size of blooms.

To keep your hydrangeas blue apply aluminum sulphate 1 lb. to 1 square yard of soil. To keep them pink give a dressing of potash.

ROSE FERTILIZER – (Tonks manure)

12 parts superphosphate of lime (3 lbs.) Makes 8¼ lbs.

10 parts nitrate of potash (2½ lbs.)

2 parts sulphate of magnesium (½ lb.)

1 part sulphate of iron (¼ lb.)

8 parts sulphate of lime (2 lbs.)

apply ¼ lb. to 1 square yard of soil

WHY: Use soil to hold the plant upright
Peat moss to hold moisture
Sand to texture the mix
Charcoal to sweeten the mix
Horn meal to fertilize
Powdered kelp to see what it would do
Worm castings for fertilizer
Cow manure because I had it
Lime to sweeten the soil and stiffen stems
Sulphate of ammonia for greening stimulant
Super phosphate to increase roots
Potash for color
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Color Inheritance

Notes from Talk to Hybridizers

by Mrs. Joseph Witt

According to Frimmel, three pigments occur in flower colors of the garden primrose—Anthocyanin, carotin, and anthochlor yellow; 260 color tones are recognisable. Carotin inheritance is monogenic, anthocyanin is digenic, with a factor for red and another for blue, the two together developing a blue-violet; white is recessive. Colors approaching black result from association of the gene for carotin with the two anthocyanin genes. Heterozygotes are expressed as various color tones. Four forms of the eye of the flower in *P. sinensis* are known. Small eye is a monogenic dominant to large eye, and white eye acts in varying degrees as dominant over both small and large eyes. A fourth type, large greenish eye, is a monogenic recessive to normal.

Two type of doubleness occur. Each is a monogenic recessive to normal. In several species of *Primula* normal forms have short styles with an-

thers borne above the stigma, or long styles with anthers at a lower level. These are self-sterile. Crossover types with long styles and anthers at the higher level and short styles with anthers at the lower level are infrequent but self-fertile. The short-style type is a simple dominant to the long-style, except in *P. hortensis*, in which two genes are assumed. In *P. obconica* fertility is lower when forms of like style lengths are crossed than when unlike lengths are crossed. In *P. hortensis* and *P. acaulis* fertilization of normally incompatible forms was accomplished by pollinating stubs after the removal of styles. In crosses of *P. juliae*, with *P. acaulis* and *P. elatior* F₂ and backcross data were obtained; short styles were dominant over long; orange over yellow eye. In *P. vulgaris* one recessive gene is responsible for various defects in floral organs. A white-margined leaf type is recessive in *P. malcacoides*. In *P. officianalis* a defective type with five extra pistils

and no stamens is a simple recessive. Genetic analysis is most advanced in *P. sinensis* in which 25 pairs of genes and 2 sets of multiple alleles are recognized. Fifteen of these genes have been located in four chromosomes.

On selfing *P. kewensis*, a tetraploid species, and several types with respect to style length, fertility, greening in the corolla, and doubleness were obtained, but the parental types were not recovered. Other tetraploid forms which appeared in progenies of diploid *P. sinensis*, proved less fertile than the diploids. Only two of seven genes completely dominant in the diploid proved completely dominant in the tetraploid i.e., when one dominant gene and three recessives were opposed. A technical study of linkage in a tetraploid has been made.

GENERAL RULES (Karl Paech, "Color Development in Flowers" Am. Revue of Plant Phys. pp 273 plus.)

1. Plastid pigment, copigment, yellow flavonoids, together with both general and specific anthocyanin production are generally dominant over their absence.
2. The modification involving more-oxidized anthocyanins is dominant over less oxidized, and more methylated over less methylated.
3. 3, 5, diclycosidic and complex anthocyanins are dominant over the three monoglycosidic and normal anthocyanin type. (Complex dominant over simple)
4. More acid petal sap is dominant over less acid.
5. Uniform pigment distribution is dominant over flaking or marbling.

HIRSUTIDIN (one of the anthocyanins) is found in *Primula* and for that reason we are very lucky. It is one of the most complex anthocyanins, which are affected by copigments anyway, and therefore

more mutations can result. The more complicated the compounds the more chance of their breaking off and forming subdivisions. Primroses seem well set up for lots of variations and mutations.

Over a long period today's primroses have built up step by step. We are interested in a reversal, or going backward, to find the way in which they developed.

There are 8 different anthocyanidins. The chances are we will not know what anthocyanins our *Primulas* contain unless we are fortunate enough to find an article that tells us. But we will see as we hybridize the changes from one depth of color to another. In a study of *Cynararia* it was found that they had just delphinidium. Where they were violet they had both delphinid and cyanidin. The carmine ones had cyanidin alone. The scarlet color had pelargonidin.

Another group of closely related pigments is called anthozanthins. These have the property of turning yellow in ammonia or ammonia fumes. They are found in bright yellow bark of trees. They are also the yellow in snapdragons, and are quite likely to be completely colorless. They are usually referred to as flavons. The flavons bear a peculiar relationship to the anthocyanins which is worth knowing, because you may see it in action. They are sufficiently closely related chemically that people who have studied them have decided that they developed together along the chemical path part way, and then diverged. This means that they can compete for the original building blocks. You have just so much of this sugary substance to turn into pigment and your colorless flavons can gobble up all and reduce the color of the anthocyanin.

When you cross some of your bright yellow with very dark purple ones you probably lose some of the depth of color. In the lovely pastels you are seeing the effect of this pale yellow or colorless pigment taking part of the building material that should be going to the anthocyanins.

Oil soluble CAROTINS. They and the zanthophyls are sufficiently closely related so that you can apparently have one turn into the other. But, the carotins and zanthophyls are under no circumstances going to turn into anthocyanins. They will have no chemical effect on each other although they may be in the same flower. They *will not compete*. They will exert a visible effect but not a chemical effect. The anthocyanin and the flavon type are in the watery part of the plant cells and the carotins and zanthophyls are in the plastids, along

with the chlorophyll, in the leaves of the plant. The carotids can be alone in the flower. This is worth looking at under a microscope.

Carotin pigment will go into solution in white gas. Crush the flowers and add to the gas. Then add water. Two distinct layers will form from the carotin and water soluble pigments.

Calendulas have quite a group of carotids and the usual is to have a number – not just one. What you will be doing with primulas is to take one or two species, intercross, and break down carotids, etc. You will be trying to get just a few – not the whole number.

Co-pigments are sometimes present and this is why in crossing white and blue you sometimes get pink.

(The spelling of pigment terms has not been checked completely. There may be errors. Sorry. Editor)



Information

Minutes of the Spring Board Meeting

The April meeting of the American Primrose Society met in the Club room of the Madison House, the site of the Annual National Show Banquet. The meeting was called to order at 6:15 on April 12th by the President Albert Ross Smith.

The minutes of the last meeting were approved as written.

The Treasurer reported that we are in good financial condition at this time.

Etha Tate announced that she would like to be relieved of her position as Judges Chairperson. It was brought to the Board's attention that it is the responsibility of the Presidents of each chapter to report to Mrs. Tate the names of the judges who participate in the individual shows. This has not been done in the past, thereby making it difficult to keep records on the standings of the various people who have completed their training and become qualified judges.

Larry Bailey presented to the board a most beautiful goblet, etched crystal, sent to him by one of our members, Mr. Bernard Smith from Kent, England. Mr. Smith asked Larry to award it to some one of his choice,

that he thought had performed service to the Primrose Society above and beyond – Larry felt, and the board unanimously agreed, the award should be presented to Irene Buckles for all her help and support. It will be presented to her at the Banquet. Irene, we congratulate you!

Our guest at the Board meeting was our Editor, from his home in Pennsylvania. We expected to hear from him concerning his Photo Contest as well as his interest in the upcoming 50th anniversary show in 1991, but the necessary brevity of the meeting prevented this.

The meeting adjourned, and the members joined the others at the Banquet tables.

Respectfully submitted
Candy Strickland

Book Review

A new book on primulas entitled "Primulas Old and New" ISBN 0 7153 8731 6 by Jack Wemyss-Cooke has been received from the publishers – Davis & Charles in England. The book is informative, beautifully illustrated,

New and improved strain of garden auriculas, the result of 30 years of selecting and breeding for better color and vigor.

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reasonably complete. Naturally the coverage on auriculas is most complete – about half the 200 odd page volume is devoted to their history, culture, varieties and other lore. Numerous magnificent, very detailed photographs, both in color and black-and-white round out this section. Included are excellent lists of varieties.

Beginning with the section on European primulas (immediately after auriculas) there is an extensive series of the most exquisite pen and ink drawings of the species primulas, presumably by the author. These alone are worth the price of the book. Modest descriptions of a considerable range of the most desirable/most cultivated species, including extensive cultural notes, are presented in the

2nd half of the book. Double primroses receive an interesting chapter. There is material on hybridizing, on exhibiting, pests and diseases. Like I said, an altogether interesting and satisfying book. If you would like to purchase a copy and cannot find it, please contact your Editor.

–RLC–

Round Robins

Mrs. Ruth Bartlett has asked us to remind you that the Round Robins are still very much alive, and that if you would like to take part in one you should contact her at

P.O. Box 42
Gig Harbor, WA 98335

Annual Shows

Four primrose shows were held this year on the West Coast and one back East (a part of the famed Philadelphia Flower Show) and we have promised to attempt a report of these.

Oregon Primrose Society

The Oregon Primrose Society held its 27th Annual Show on April 5 at the Community Club in Milwaukie under the general chairmanship of Frank C. Barthold. The show had fewer entries than in previous years, possibly partly because of the early date. There were no junior entries at all, and in the Decorative Division there were seven arrangements – the work of three exhibitors.

But there was a good supply of material for the sales table, both of primulas and of companion plants. The sales table did a brisk business.

It is estimated that about 200 people visited the show. Awards were as follows:

Best Polyanthus, exhibitor Ross Willington

Best Acaulis Hybrid, exhibitor Ross Willingham

Best Juliae Hybrid, exhibitor Orval Agee

Best Garden Auricula, exhibitor Orval Agee with a cream colored auricula

This was also the Best in Show

Award – Dale Worthington trophy

Best Alpine Auricula, exhibitor Jay and Ann Lunn

Best Show Auricula, exhibitor Orval Agee with a green edged Auricula

Best species, exhibitor Chehalis Rare Plant Nursery with Peter Klein

Best Seedling, exhibitor Jay and Ann Lunn with an Alpine Auricula Award – perpetual Miller Products trophy

Best Companion Plant, exhibitor Chehalis Rare Plant Nursery with an orang Lewisia Award – William Tate trophy

Sweepstakes won by Chehalis Rare Plant Nursery

The National Show

The 1986 National Primrose Show held in Kirkland, Washington on April 26 turned out to be a great success for the Eastside Chapter and for all those who entered plants. There were 306 entries in all.

On the species table there was a good color range of x *pubescens* hybrids but with the warm early spring most *marginatas* were past their prime and only two were benched for this show. On the other hand, the early warmth brought out the candelabras and a good showing of *P. sieboldii* in every color imaginable. Flip Fenili of Tacoma, WA must have a cool, shady spot for growing. He was able to show three *P. denticulatas* while most everyone else's were already making seed. The Baileys' had a really nice *P. kisoana alba* in the show. Herb Dickson filled out the cortusoides section with a huge leaved *P. polyneura*. The farinosae section was well represented with *P. involucreta*, *halleri*, *frondosa* and *farinosa*. *P. rosea*, usually seen in numbers at the early shows, were missed. Three sweet-smelling *P. reidii* var. *williamsii* from Herb Dickson helped fill the area with primrose perfume. He is one person who can keep them growing from year to year. Evie Douglas' 7" pot full of *P. chionantha* in full two-tiered bloom was an attraction in itself. The Parryi section had two blue ribbon winners: *P. rusbyi* from Orval Agee and *P. ellisae* from the Baileys'. We see far too little of the American species in our own shows.

There were a few nice double and semi-double garden auriculas and a wide range of colors in the single gardens. Not many julies were shown, due to the early spring. Some of the named ones still in bloom included, 'Old Port', 'Amy', 'Kay', 'Little Gem', 'Millicent', 'Jay-Jay' and a whole grouping of 'Early Girl'. An unnamed large-flowered mottled pink from Rosetta Jones was really an eye catcher. Hope she has space to save offsets of this one. There was an excellent choice of single polyanthus in all shapes, colors and size. No spice shades tho'. Only four acaulis-polyanthus to be seen. This class hasn't been a very popular entry. The double acaulis put on a fine show. Rosetta Jones showed her usual fine array of yellow shades plus a deep red with a fine white edge that really stood out.

An entire table was reserved for seedlings. Another good double acaulis from Rosetta Jones had pale blue outer petals and a deep blue tight center. Another goodie was a hot pink mini-poly from Florence Tibbatts.

Exhibition plants weren't up to their usual numbers. Only 1/2 dozen gold-laced and no silver laces. A fancy auricula, 'China Moon' from the Baileys, was in its full glory. Outstanding in the show selfs: 'Murray' (wine-red) and 'Bilton' (yellow) both from Baileys.

Hybridizing had three entries from Larry Bailey this year. He is getting some nice things from all his hard work. Also from Baileys was a rarely seen gallygaskins

polyanthus.

There were only two growers exhibits. Most don't bother with this entry as it is difficult to find six plants that are the same, but the display is well worth the effort.

Companion plants were widely varied with dwarf iris from Bill Smith; huge *Lewisia cotyledon* hybrids from Florence Tibbatts and Herb Dickson and with a number of Dodecatheons for the other members of the Primulaceae family.

In addition to these entries a floor display was put in by June Skidmore of Mercer Island, Washington. Her handcrafted troughs filled with her delightful little treasures are always a welcome attraction.

A new concept for this show was added and attended to by Florence Tibbatts. A large world map was the backdrop for a table filled with primula species. Each species had a colored ribbon pinned to the country of origin. This display drew a good deal of interest from everyone attending the show. Herb Dickson supplied the primulas.

The sales table held a wide variety of everything, including edged auriculas (always a good seller), lots of julie hybrids (although not many were on the show table), and companion plants, including seedlings from Vickey Sauer's 1985 award-winning *Viola zoyzii*. A good selection of garden auriculas were also for sale along with polys and acaulis in all colors. Even some of Rosetta's doubles and some of Terri Koch's double acaulis were offered for sale this year. Species selections were good, too, with *P. halleri*, *rosea*, *capitata* and candelabras and dodecatheons.

On Saturday evening the annual banquet was attended by 54 members and guests. After dinner the awards were presented by APS President Al Smith with a special award of service to Ross and Helen Willingham for their years of hard work with the APS seed exchange. The highlight of the evening was the slide presentation by Phil Pearson and Steve Doonan of Grand Ridge Nursery. Their knowledge of plants and their enthusiasm are always an inspiration to all who see their slide show presentation.

Award winners this year:

DIV. I	Best Acaulis Nice bright yellow single	Rosetta Jones Kent, WA
DIV. II	Best Polyanthus Miniature white with many full flowered umbles	Irene Buckles Seattle, WA
DIV. III	Best Acaulis-Polyanthus Bright yellow single	Florence Tibbatts Kirkland, WA
DIV. IV	Best Julie Hybrid <i>*Ivanel Agee Trophy</i> Large clump of 'Little Gem'	Irene Buckles
DIV. V	Best in Hybridizing Auricula 'Macbeth' x BAS red stripes on a creamy chartruse ground	Larry Bailey Edmonds, WA
DIV. VI	Best Garden Auricula Pale yellow with three full umbels Best Double Auricula <i>*Ellen Page Hayden Trophy</i>	Herb Dickson Chehalis, WA Herb Dickson

DIV. VII	Best Species <i>*Raye Berry Trophy</i> 5" pot full of <i>P. frondosa</i> in full flower	Milt Gaschk Tacoma, WA
DIV. VIII	Best Seedling Bright pink acaulis with yellow eye	Rosetta Jones
DIV. IX	Best Named Show Auricula <i>*Frank Michaud Trophy</i> 'Adonis' having one perfect stalk Best Alpine Auricula <i>*John Shuman Trophy</i> 'Rabruy Heath', nice blue with 5 perfect pips	Baileys Edmonds, WA Baileys
DIV. X	Best Rarity <i>P. Ellisae</i> in full bloom	Baileys
DIV. XI	Best Oddity White <i>P. sieboldii</i> with distinct lavender stripes	Vickey Sauer Renton, WA
DIV. XII	Best Junior Dark red cowichen	Edna Bailey Edmonds, WA
DIV. XIV	Best Growers Exhibit 6 julie 'Little Gem' in a wooden flat	Irene Buckles
DIV. XV	Best Primulaceae Red-violet Dodecatheon species	Herb Dickson
DIV. XVI	Best Decorative Clear orchid auriculas with iris leaves depicting religious Easter theme Best Decorative, Junior Small glazed pot filled with red, white and purple auriculas and polys Best Miniature Garden Setting complete with creek and bridge surrounded by mini acaulis and polys	Lena Smith Duvall, WA Edith Bailey Edmonds, WA Florence Tibbatts
DIV. XVII	Best Companion Plant Orange shade of <i>Lewisia cotyledon</i> hybrid	Herb Dickson

**SWEEPSTAKES WINNER – Herb Dickson
Runner-up – Irene Buckles**

Additional awards for outstanding plants

Mini acaulis nice little blue with white spot in petal notch	Florence Tibbatts
Garryarde 8" pot full covered with blooms	Dorothy Wold Kirkland, WA
Julie 'Early Girl'	Irene Buckles
Double acaulis Yellow tinged with orange	Rosetta Jones
Green edge show auricula Seeding	Orval Agee Milwaukie, OR

Double auricula
Chartruse tinged brown

Rosetta Jones

*Perpetual National Trophies

Washington State Chapter

The Washington State Chapter Show, a one-day affair, was held out-of-doors at the new convention facilities of Washington State University on May 3. We have received no report on this show, except that it was well-attended. The winners were as follows:

DIVISION	WINNER	WINNING PLANT
Best Acaulis	Irene Buckles	blue single
Best Double Acaulis	Baileys	double yellow
Best Polyanthus	Earl Welch	yellow 'Tasmanian'
Best Acaulis-Poly.	Irene Buckles	yellow
Best Juliana Hybrid	Darlene Heller	Cowichan
Best in Hybridizing	Baileys	auricula
Best Garden Auricula	Flip Feneli	white
Brightest Garden Auricula blue & white (James Watson Trophy)	Chehalis Rare Plant Nursery	
Best Double Auricula Seedling (C.C. Chambers Award)	Rosetta Jones	green/yellow double
Best Double Auricula	Chehalis Rare Plant Nursery	
Best Specie (U.S. & European)	Baileys	P. veris
Best Specie (Asiatic)	Irene Buckles	P. sieboldii
Best Seedling	Irene Buckles	P. Halleri
Best Exhibition Plant	Baileys	Auricula 'Argus'
Best Alpine Seedling (Grace T. Dowling award)	Baileys	Red & Yellow alpine
Best Rarity	Chehalis Rare Plant Nursery	P. saffirina
Best Oddity	Rosetta Jones	Double auricula 'frosty'
Best Juniors	Edna Bailey	cut primulas in vase
	Edith Bailey	cut primulas in vase
Best Growers Exhibit	Vickey Sauer	P. sieboldii
Best Primulaceae	Milt Gosch	dodecatheon
Best Decorative	Flo Tibbatts	
Miniature garden planting		
Best Companion Plant	Vickey Sauer	minature iris
Sweepstakes (Marion Hannah award)	Baileys	

Tacoma Show

The Tacoma Show was held on April 26-27 at the Tacoma Mall. There were 15 exhibitors showing 264 primula entires and 29 decoratives. The following comments describe the proceedings:

For the third consecutive year, the show was staged in the Tacoma Mall. This year, the tables were spread apart, to avoid blocking traffic. This worked out

very well, it gave people a better view of all the plants exhibited. There were 20 tables used for the plants.

The show was highly successful, in spite of the late date. Many primroses were past their prime and could not be shown, but, on the other hand, we were able to see many primroses not usually exhibited, (ie) entries from the Proliferae groups, Cortusoides, Nivales, and Soldanelloideae. Many people expressed their pleasure, for these plants are rarely seen by the general public.

Plant buyers were interested in the Candelabras, the Florindae, the Auriculas, - the unusual -. 494 plants were sold this year.

Ruth Huston of Spring Hill Farm, Gig Harbor, Wa. manned our education table with sample plants (demonstrations for dividing, etc.), literature on raising plants from seeds, and on the culture of raising primroses.

Adjacent to the education table, was a table staffed by the Pierce County Master Gardeners.

Two lovely floor displays were also in the immediate area. One by a member of the Washington State Chapter consisted of 9 concrete troughs filled with primroses and companion plants. The other was a very large display from a local nurseryman. This display consisted of primroses, (Candelabras, Double Acaulis, Oxlip and Saxatilis), 5 Japanese Maples, 3 Pines, Rhododendrons, *Sequoia Pendula* and Pieris in variety.

Awards were as follows:

Div. I	Best Acaulis Ernest Winter Trophy	Rosetta Jones
Div. II	Best Double Acaulis Best Polyanthus - Cowichan Washington Hardware Trophy	Rosetta Jones Viola Purple
Div. III	Best Acaulis - Polyanthus	Cy Happy
Div. IV	Best Julie Hybrid	Cy Happy
Div. VI	Best Garden Auricula Best Double Auricula Best Auricula Seedling	Flip Feneli Chehalis Rare Plant Nursery Loreen Hansen
Div. VII	Best Species (Sieboldii)	Flip Feneli
Div. VIIB	Candelabra	Flip Feneli
Div. VIII	Best Seeding I. Farinosa II. Sieboldii	Irene Buckles Irene Buckles
Div. IX	Best Named Show Auricula (Sec. A) Ivy's Red Best Self Show (Sec. A) Rosa Peterson Trophy	Chehalis Rare Plant Nursery Chehalis Rare Plant Nursery
Div. X	Best Alpine (Sec. B) - Argus	Chehalis Rare Plant Nursery
Div. XI	Best Alpine Seedling (Sec. C)	Chehalis Rare Plant Nursery
Div. XV	Best Gold Lace (Sec. D)	Viola Purple
Div. XVII	Best Gold Lace Seedling (Sec. E.)	Viola Purple
SWEEPSTAKES	Best Rarity Best Oddity Best Primulaceae Best Companion Plant The Ryan Trophy	Chehalis Rare Plant Nursery Clete Johnson Chehalis Rare Plant Nursery Rosetta Jones Chehalis Rare Plant Nursery

Other awards may be given to plants of merit as decided by the judges and Show Chairman.

16 C Best Mini Garden
Wee Willie Award

Irene Buckles
Irene Buckles

Philadelphia Flower Show – 1986

By Roland Mueller

Every (well, almost every) horticulturist in the Delaware Valley had his hands full with flat after flat of plants in early March this year. And "insanity" is the only way to describe the fever that galvanizes every (practically every) green grower as this very special week of pride and glory – the Philadelphia Flower Show – approaches. This great show, as many of you no doubt know, is the largest such event which still takes place regularly in the United States. It is held in the Philadelphia Civic Center, and believe it or not occupies almost 15 acres.

All year long nurserymen and growers alike prepare for the show, and as the opening date of the 8-day affair approaches they begin to appraise and select, to trim back a dead leaf here, crush a hapless insect there, and oh so carefully water all the

'babies'.

In the feverish week before opening day, devoted growers get up impossibly early in the morning and fight their way through rush hour traffic to set up their exhibits in the Civic Center – not once, but three or four times.

My mother, Mrs. Claire Muller, being one of the most afflicted of our local horticulturists, follows this bizarre year round schedule in hopes of taking some blue ribbons in her beloved primula classes, of which there are only two in the big Show.

As an onlooker and bemused assistant to the lady, I am alternately exhilarated and appalled at the fierce competition show time brings out, for friend and foe alike.

But after all the anxiety and hoopla, when the blue, the red and the green ribbons repose sweetly beside the handiwork of the elite few there is a chance to reflect on the "education of the public" and a brief period of rest before the whole thing starts again with fresh grim determination. I ask you, what's to be made of these adults?



Woodland
primroses
table

American Primrose Society

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Vice President: Terri Koch, 12495 Sunnyview Rd. NE, Salem, OR 97301
Recording Secretary: Ester (Candy) Strickland, 2722 E. 84th, Tacoma, WA 98445
Treasurer: Brian Skidmore, 6730 West Mercer Way, Mercer Island, WA 98040
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Thelma Genheimer, Beaverton, OR 1984
Irene Buckles, Seattle, WA 1984
Orville Agee, Milwaukee, OR 1985
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Presidents of affiliated societies and chapters

Membership

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 at 1236 Wendover Ave., Rosemont, PA 19010. Advertising rates per issue: full page \$60; half page \$30; quarter page \$15; eighth page and minimum \$10. Submit advertising to the editor.

Seed Exchange

Ester Strickland, chairman. 2722 E. 84th, Tacoma, WA 98445.

Show Judges

Etha Tate, 10722 S.E. 40th Avenue, Milwaukie, OR 97222

Slide Library

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A Synoptic Guide to the Genus *Primula*

by

G. K. Fenderson

This book is intended to serve as a basic reference to the genus *Primula*. Approximately 1375 species, synonyms, and hybrids are included, each with complete reference to author, initial publication, and current status; for nonhybrid taxa, details of typification are also given. Distribution, habitat, altitude, section, a cultural code, stature, and color are indicated for all currently accepted species. The several dozen species described since 1949 are included within this conspectus.

Authors and details of publication are provided for natural hybrids and for many artificial hybrids resulting from crosses of legitimate species; parentage is indicated as well.

An extensive outline of the genus from subgenera to varieties is presented and includes a detailed synopsis of subdivisional characters. Authorities and publication data for all subdivisions are also included.

Fifty-six line drawings prepared from herbarium specimens represent the broad spectrum of forms that have evolved within the genus.

Chapters are devoted to the taxonomic history of the genus, its origins, and distribution. Other chapters treat cultivation of particular species or groups, growing primulas from seed, and pests and diseases.

This book is completed by an extensive bibliography that includes both botanical and horticultural works. It provides a unified reference to the most important horticultural and systematic contributions to the genus *Primula* since the appearance of Smith and Fletcher's monograph.

Pp. i-iv, 1-186 (plus indexes to subjects and to scientific names and authorities) 8" x 10", hardbound on archival quality paper; 56 line drawings, 1 black and white photograph; published at \$40.00. Available from the American Rock Garden Society Bookstore and other major distributors of horticultural and botanical books (outside the U.S.A. from Wheldon & Wesley, Ltd. Codicote, Hitchin, Herts. SG4 8TE, England).

ISBN 0-935868-24-0.