American Primrose Society Quarterly

ERRORS


3. Page 31. Marginata hybrid "Agee" (developed by Ivanel Agee) offered by Chehalis Rare Plant Nursery.

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On the cover:
"Springtime" primula vulgaris /subsp.
sibthorpii, casts a rosy pink glow in the
garden of Fred and Helen Clarke from
midwinter to April. "Springtime" grows
in a semi-sheltered planter box.

Quote, Unquote
Of all the perennial flowers that thrive
in the Pacific Northwest, the primrose is
undoubtedly one of the champs.
Personally, I'm a late, but nonetheless
enthusiastic arrival to the pack of primrose
enthusiasts. Just a few years ago we started
the practice of picking up a few nursery
plants for interim indoor color during that
drab period between forced bulbs and
forsythia. When the blossoms eventually
faded we put the plants out in the garden,
where they would occasionally bloom again
during the same season.
Now, as a pleasant but not intentional
consequence, we're nurturing a growing—
and glowering—population of primroses . . .
We've become real fans.
—from "Gardens"
by Philip Warren
Seattle Post-Intelligencer
Feb. 25, 1977

President's Page

The society officers are pleased to announce that Cyrus and Rita Happy have agreed to
assume the responsibility of the Quarterly editorship. Cy is a renowned grower of auriculas
and the president of the large and thriving Tacoma Primrose Society. Rita has had newspaper
experience and is an excellent free-lance writer. The society membership can look
forward to an interesting and informative time of growth.
The retiring editor, Dorothy Springer, left a useful legacy—a conviction among the
"working circle" the regional editors must consistently help with contributions. Alice Hills
Baylor has been particularly generous with her time and energy. We appreciate having
her "Questions and Answers" column again, meeting specific needs for many of our readers.
Herbert Dickson has assembled and sorted all of the back issues of the Quarterly.
From July 1943, to date, there are 11 issues with no copies. Other issues are all available,
and should not just be in storage. Dick Charleton made wooden boxes, one for each issue,
in which to file Quarterlies.
We appreciate all the work done by these two families to accomplish this organization,
and now we need to develop ways to put these excellent sources of information to wider
use. There is much to learn, and to enjoy, in the Quarterlies. With the Baldwins' new Index,
specific information is easy to find. Send requests for Quarterlies to the treasurer.
The weather extremes, east and west, cause concern as to the coming condition of
primulas this spring and summer. How deeply is the ground frozen under all that snow?
Let us know what you are growing and how they fare! Here, near Portland, Ore., Feb. 23—the
sieberdii present white leaf buds poking through the soil and crinkled green leaves are
enlarging daily. The juliana hybrids and acaulis are in weather-battered bloom; the pubescens
tribe is showing color in the buds, and candelabras are all starting to surge upward.
Such joy, spring on the way! However, active slugs can be found under clods of dirt or
near a primula crown. Certain weeds have grown all winter. Two of this garden's three wells
are dry. This area has had one-tenth the normal rainfall and has no snowpack in the
mountains. Is cloud seeding just a step removed from rain dances? With or without coopera-
tive weather, the spring offerings of primrose shows and garden tours await us.

Anita Alexander
Dear Tony;

The decorative class was certainly a good place for you to get started in the primrose shows. Next you should take a few plants to the show.

If you have plants or can take over a few of the family collection, begin a program of grooming and fertilizing. Take off all dead leaves and old flower stalks and give the plant a little mulch—especially if the roots are exposed.

Growth, blossom secrets

A little shot of quick-acting fertilizer, such as Schultz’s Instant, will encourage new growth. Use slug bait. Then about a month before the show feed them 0-10-10 to bring on the bloom. This fertilizer has no nitrogen (which would encourage leaf growth). Instead it directs all energy to the production of flowers.

Several days before the show dig and pot the plants. Generally pots should not be much larger or smaller than the plants that go in them. Give the plants a good soaking and put them in a cool shady place to recover from the shock of transplanting.

Just before entering the plants, clean off the dead and tired blossoms, space out the others if you can and take off all damaged foliage. Don’t forget to wipe the pots. Oh, yes. Good luck!

Pollinating for fun and flowers

There’s nothing more rewarding than watching the results of your own pollinating come into bloom. All you need are a few carefully chosen plants for seed parents. They should be vigorous and have some of the qualities you’re breeding for.

If you don’t have a suitable pollen parent plant, you now have a good excuse to call on your gardening friends. If they’ll share some blossoms, you’re ready to begin.

(Select blossoms that are young, on which pollen is just ripening.)

Use magnifying glass

Tear the blossoms apart of the seed parent to expose the pistil. Use a magnifying glass to be sure the stigma has not already received pollen. Check with the glass to be sure the stigma is sticky. That means it is ready to receive pollen.

Here’s what I do. I slightly moisten the tip of my penknife, scrape a little pollen off the anther of the pollen blossom and place it on the stigma of the seed plant. In a few hours the pollen grains will germinate and fertilize the embryo seeds.

Mark your crosses with a label, and watch for the seed pods to ripen in early July.

Tony Torrent

Beginner’s Luck—with Tony

First of all, I would like to tell you a little bit about myself. I am a kid—dark hair and eyes. I’m 12 years old, and I am a certified primula judge.

I first got interested in primroses about two years ago when my dad had me help him pollinate his primroses one spring. Since then I have helped with a few shows as well as entering the show last year and winning the junior sweepstakes for arrangements.

I am really looking forward to the show this year. There are many things for kids to do to get ready for a show. For instance, you could help paper the show benches. Or maybe you would help carry the plants to the proper benches. Whatever you help with, I know you will have a lot of fun.

One way I learned about primroses can also help you. Try to go to talk to the older, more experienced members of the club and ask them any questions you may have. You sure can learn a lot of things from them. They can show you how to plant your seeds and take care of your plants—and nearly anything else.

And remember, even if you can’t seem to grow plants very well yet, you can probably win some good prizes in arrangements.

Tony Torrent
One of the first miniature primroses I grew was the blue, nodding bells of *P. elwesiana* from seed sent to the late Prof. Harold Rugg of Dartmouth from India and given to me in 1952.

It grew about three inches, topped by a cluster of sky-blue flowers and endured in moist rich soil for five years. It has been changed to a related genus and is now *Omphalogramma elwesiana*.

**Quarter-sized rosette**

*P. cottia* was grown and flowered in May 1953. It is reported by Corsar as being a small species of *P. villosa*, with rose-pink flowers. The perfectly formed rosette is about the size of a quarter, the leaves hairy, especially when young. It is in the red-haired subsection *Erythrodosum* and usually forms the red hairy edges the second year.

The natural habitat is in the Cottian Alps on volcanic cliffs but in lime-free soil, in a scree in more sun. It is easy to grow in well drained soil.

**Red-haired pedemontana**

*P. pedemontana* is also in the red-haired section, a lovely species from the Graian Alps. It is not as vigorous as some and needs a deep cool humus-filled soil for its roots.

My seeds came from Mrs. A.C.U. Berry of Portland in 1952 and did not generate until the second spring. The scape stands five inches above the small compact rosette and bears a cluster of deep pink flowers with a white eye. The plants should be mulched with granite chips.

**A gift from Ivy**

*P. allionii* was given to me by my good friend Ivy Agee, who has done a great deal of good hybridizing with small Primulas. It flowered in its lime-treated bed; the large rose flowers were enjoyed one year.

However, it left a gift when a garden auricula (larger, of course) with grey-green foliage and flowers the exact shade showed up in my seedling bed two years later.

*P. glutinosa* is the much prized blue species from Tyrol and Central Alps. Besides their choice color, the flowers are decidedly fragrant. The rosettes are formed of narrow strip-like leaves—very sticky and leathery in texture. The tips are toothed.

**Need lime-free soil**

They should be planted in a lime-free soil with quantities of compost and some sand added. They like moisture just before flowering but not later. (Melting snow in the native haunts.) The hybrids are all shades of blue, and some inherit the stickiness of this jewel.

*P. viscosa* is violet. The rosette of yellow-green has large broad, succulent leaves bearing short hairs. It grows in granite in the Pyrenees. The cluster may have six to 16 flowers on a one-sided umbel.

**Delayed flowers**

I germinated it in 1952 but had no flowers until two years later. Then some were almost an inch across. This plant can be variable to a marked degree according to where it is found growing. The yellowish-green foliage is a definite characteristic even though the color of the flower can vary to a soft rose, all with a white eye. It likes plenty of peat and sandstone in the prepared soil.

Two miniatures also were germinated the winter of 1952, *P. rosea grandiflora* and *P. glaucescens*. The rosettes were transplanted to a prepared bed in early summer. The following spring sturdy three-inch stems thrust up from the dark green rosette topped with brilliant rose flowers where they showed their ruby color against a receding drift of crystal snow.

**Watch seed capsules**

They should be watched, as the seed capsules ripen quickly and will scatter the seed. They also should be divided every other year because the wire-like roots tangle and hold the plant tight, making it difficult for the center to have plant food.

The two-inch rosettes of *P. glaucescens* with dark green pointed foliage were planted in a prepared bed in gritty humus-filled soil half way down the auricula terrace beside the path. Their native home is in the Italian Alps, and they seemed to enjoy my garden—but they did not bloom.

**Indignant response**

The third winter I wrote to Dr. Carl Worth about my healthy plants with no flowers. His answer was indignant. I had given them no lime.

His advice was to pour lime water around the plant as soon as the ground thawed and mulch with lime chips. A friend had brought me a piece of Indiana limestone which I hammered into bits of mulch.

In May the flower stalk grew from the center of each rosette on a two-inch stem topped with the most beautiful cluster of lilac flowers. This is a variety calycina. They flourished, set seed and also side shoots which I removed and rooted.

In the winter of '53 I planted several miniatures—*P. marginata*, *minima*, *involucrata*, *halleri* (longiflora), *frondosa*, *farinosa*, *kleinii* and *reidi*.
The seeds of the P. marginata did not germinate, but that September my good friend from The Garden in the Woods brought me a flat of them. The little plants showed the silver edge. They were held over in the cold frame until the next spring, when they were planted in the crevices of the low stone wall facing northwest.

That summer I received a memorial gift of mature plants of P. marginata by the daughter who granted her failing mother a visit to my garden the summer before. The old woody stems contained many silver-edged rosettes which I cut off after the shock of transplanting. The long tap root was put between two rocks in the low stone wall facing northwest.

Stunning garden view
The clear blue flowers were stunning against the weathered rocks with the pink P. kleinii above. In nature marginata inhabits a few places in the Maritimes and also in the Cottian Alps—usually in limestone but sometimes on granite and slate. We have been told they often extend two feet over a cliff edge with flowering silver-edged rosettes growing along the bare root and clustered at the end.

The rosettes of P. marginata are about one and a half to two inches across and throw the scape, which is often four to eight inches. Theumbel of shell pink flowers with a yellow eye. There is a white form which came with the packet of seeds. The rosette measures no more than an inch across. P. farinosa is larger, the rosette densely powdered on the underside of the foliage as well as along the six to eight-inch scape. The umbel is erect, and a mass planting will show pink, lilac and white clusters of flowers. These are held readily from seed; Scotland and England’s wet meadows are aglow with these delightful miniatures in spring.

Heavy farina dusting
P. frondosa is still a bit larger than the foregoing two. It has an extra heavy dusting of farina on the underside of leaves and on the scape, which is often five inches tall by a cluster of large shell pink flowers.

Its home is the Bulgarian Caucasus. It makes a stunning edging for P. acaulis or polyanthus. The foliage is more crinkled; some plants have slightly scalloped edges. Any light, rich soil suits this miniature. P. darlalica is considered the robust member of this group. The powder on the underside of foliage is white. Often the powder is yellow on P. fauriei and farinosa.

P. halleri

Enduring flowers
The scape is sturdy and five inches above the rosette, which is often four to five inches across. The umbel of shell pink flowers with a yellow eye endures longer than the others.

It is often into July before I can divide the darlalicas. When I do, the water in which I wash the roots is covered with a layer of white farina. The plants can be divided every year because they multiply so fast. The plant is from moist places in the Caucasus.

Features long tube
P. halleri (longifolia) has been in cultivation for a long time. The distinguishing feature is the long corolla tube, often more than an inch long. This, as well as the scape and underside of the foliage, is heavily powdered. The flowers are on a four to eight-inch stem in a soft violet shade with a yellow throat.

Any good rich soil will suit it, and it is attractive in a thick group. It is not as long-lived as some in this group, but it comes readily from seed. This species is found at high elevation (5000-700 feet) in the Carpathians, Croatia and into Albania, Serbia, Bulgaria and Armenia. It likes both moist rock crevices and open wet meadows.

Gifts from 1952
I received P. kisoana and its cousin P. jesooana as gifts in 1952. They both have endured. They need not be replaced, for they grow long runners in the humus-filled soil to produce other tiny balls of furfiness which resemble white cotton balls in very early spring.

The P. kisoana is very similar, but the foliage is cordate at the base and lobed, the lobes being dentate. The scape is slender and about two inches, topped by a whorl-bearing long tubed flowers in bright crimson.

Alice Hills Baylor is corresponding secretary from the east. She lives in Stowe, Vermont. She will discuss native Japanese Primulas in a future issue of the Quarterly.
January—how it all started

Month of cold, cold earth, cold, cold stars, hooting owls, ivy-hugged trees looming grotesquely out of swirling white mists. Snowdrops beginning to spear the mossy banks, hellebores pushing unwilling buds, bullfinches shredding forsythia and dormant fruit blossoms, winter crocuses huddled under the old stone walls in sulking blobs of orange and purple waiting for a few shafts of sunlight to coax them forth rejoicing.

Here at Barnhaven we burn the midnight oil, shoveling out seed orders. January, February and March are the peak seed-peddling months. Outside, when the weather allows, we are busy with the annual clean-up, hacking down overgrown thickets of elder which spring up all over the place, clearing away herbaceous debris and cremating the lot.

The primroses sit patiently in the bleakness, biding their time. There is nothing we can do for them this month, apart from keeping a watchful eye for frost heaving. We very rarely have snow cover in the valley. The clouds tip their loads atop of and either side of the hills around.

Asiatic Primula seed is sown early in the month and the flats placed outside to freeze and thaw naturally, protected from beating rains. Germination is expected late March onward.

Nature’s vicious trick

Suspiciously gentle weather through the first few days of the month, but yanked from dreamland somewhere in the black hours of the night of the sixth by a screaming wind and a rapping on the window. The moon was like a big white dinner plate, and the clouds were scurrying across it, lashed and torn by the gale.

Somewhere down the gardens there was a flap-flap-flapping and then a crack and a crash that sent my heart through the mattress.

Light of day. Havoc. Roofs of every pollinating shed torn to plastic ribbons fluttering in the last gasps of the wind, and a fat tree prostate across one end of one of the structures.

Apart from thumping the end section of the shed a few inches into the ground, twanging a couple of stays loose and tipping the benches to an interesting angle, no structural damage. But I had to surrender grudgingly a couple of days of my life to extricating the poor brute from the roof, six inches at a time, sawing from a quaint position that wore me out.
Somewhere around the middle of the month the weather had a relapse. Snow appeared on the mountains, the sun departed and the wind began to pierce our thermal undies as we worked our leaden way along the benches with frozen hands and feet, wrapped up shapeless and mouths clamped shut.

Bundled the double primroses that were beginning to show color into a frame—didn't want to lose the first flowers to the keen night frosts. Four days of this misery, the last thick and grey with icy darts of sleet. Camellias and rhododendrons browned with despair.

**April—wherein mice bring misery**

A shivering start but a quick return to mild and gloomy weather accompanied by torrential rain that turns the place into a mud bath that numbs the feet. Went to retrieve the double primroses from the frame, and threw a fit. All were gnawed down to the crown and smothered with mouse droppings. These were our proved pollen parents. We all gathered round and stared in disbelief.

Nothing else in the frame had been touched—there were about 50 cowichans in there which we were trying to bring on a-pace as we needed several more on the benches. All were well budded and showing color, just like the decimated doubles, but not one had been molested. The doubles buds must have been very succulent. We rounded up a heap of mouse traps, baited them with old bread and caught 15 mice in one night.

A fortnight of hazy sunshine and soft, caressing air, punctuated by the gentlest of April showers. All the benches exuberant with color. Finished pollinating the acuals for the season, and all hands to the polyanthus, flowering in wave after wave. Impossible to keep up with them, and we had to discard hundreds of blossoms.

Sieboldii beginning to hatch like butterflies and two days spent in selecting breeding stock and lifting them into the benches. Auriculas beginning to display their velvet. Early seed sowings screaming to be pricked out. For pity's sake, stop the clock!

**May—crippling frost and snow**

Apple blossom drifting to the ground like pink and white confetti. The early candelabras are shooting up to bloom, and we are still busy with the polyanthus hybridizing, working on a fluttering mass of sieboldii and on the auriculas, which make the fingers sore with irritating farina.

Days of scrabbling for pollen among the maiden bloom of the current crop of double primrose seedlings—we made sure we didn't sell any that showed signs of cooperation. We pitched the mouse-ravaged stumps into an elder thicket, gave them a top-dressing of peat and fertilizer and prayed for their resurrection; some of these were priceless.

A crippling frost on the night of the 27th. All the early candelabra stems turned to mush, and seed crop is a write-off. The later one unharmed. Polyanthus pollinating finished at last, but the plants look like flocks of dead birds on the benches. Sieboldii stems prostrate.

By evening cloudy skies and a gentle drizzle, all the polyanthus sitting up again, but the current batch of sieboldii pollen blackened and useless and a lot of potential seed lost. Oh, but it's cold, cold, cold. Snow in the night—great white feathers floating down when we went to bed, and a white world next morning.

Warm sunshine the next afternoon, quickly dissolving the snow and revealing the white may blossom in the hedges once more.

**June, July, August—merciless heat**

Summer. Flaming, scorching, arid. No moisture from the heavens since the snow, and by the end of July our irrigation supply evaporated. Reservoirs in dire straits and household water supplies rationed, with severe penalties for mis-use, such as the watering of ornamental plants. Rash of neighbors telling tales about each other's misdemeanors to the Water Authority.

Sent out thousands of transplants with a nagging feeling of guilt, but we couldn't look after them here. Fortunately we had only one complaint of losses. We had to stagger round with watering cans up to three times a day in the merciless heat, using long-stored, smelly, algae-riddled water collected from the pollinating shed roofs in time of plenty.

We watered the outside flats during the daytime—the temperature under the plastic roofs while the sun blazed was strictly for casserole. Come evening and we were doing out succor to the endless benches of poor, blistering seedlings until darkness, and we had to complete the round by storm lantern.

The seed harvest was gathered in before sun-up. Crops of acualus, jack-in-the-green and hose-in-hose suffered badly. Stalks just withered away before the seed ripened, despite this particular structure's being shaded with hessian.

**Polyanthus pull through**

This charitable act possibly did more harm than good. The polyanthus sheds were left unshaded because we had neither the time nor the strength to deal with them. Apart from the bench, for some unfathomable reason, the harvest of polyanthus seeds was just a fraction below average. The sieboldii crop was much diminished. We couldn't keep the plants wet enough to prevent flagging. Many just shed their top growth and retreated underground.

By the end of July there was no sallying forth after mid-day. We lost several thousand seedlings in the flats out on the perimeters. We were almost out of water completely, and we didn't have the strength left to hump what there was to the boundaries. Mercifully, all the seed had been gathered in apart from the late candelabras, and the plants in the benches were left to shrivel their way to glory.

The leaves on the trees up the hillside were crisping in the vicious white heat, and they were drifting down and laying a brittle brown carpet like autumn. By mid-August the trees were bare. Conifer plantations were burnt brown, and all the grassland pale beige. The landscape was still and eerie as if a gigantic flame thrower had passed through.

Farmers were housing the sparse hay crops during the cooler nights by floodlight. Trim little cottage gardens withered and died.

**September, October, November—rain.**

On the first day of September the rains came. We had but six inches of thick green water in the last of our tanks, and the rains came. Deluge after deluge, day after day, week after week—and the valley flooded. The grassland greened up again almost overnight.

Some of the naked trees burst into fresh leaf, but some would never grow another.
Whole copses of them, on the rocky outcrops. Hordes of them blew down one wild November night, wrecking electricity cables and the supply for miles around. We were deprived for 24 hours, and we were among the favored.

Hundreds of polyanthus and acaulis plants waiting to be fielded out were squelched into the ground in desperation during late November, and we suffered the wet shivers for days. These plants were the reserve breeding stocks.

Twice as many plants as we intend to breed from are planted into the benches when the old seed parents are removed. These are selected through as they come into flower in the spring. Another 50 plants of each shade are grown outside to draw upon if necessary.

’Tis an ill wind, as they say. Plant sales after the deluge started were an all-time record. All we had left after a few weeks were our reserve stocks. We rapidly grew weary of the sight of water, and the heart curdled at the memory of all the little plants we had to abandon to wither away out of reach of mercy and aching muscle.

December—iron fist of winter

Grim, ashen and ferociously cold. Bitter winds from Siberia, savage frosts, snow to the right of us, snow to the left of us—but we are passed by. Ground iron-hard, benches frozen solid and the plants therein limp and blued. After a series of mild winters, we are not amused. We have never felt so cold in our sweet lives. How we ache for a glimpse of the sun we cursed all summer.

Thwarted and bitter because we can’t proceed with the annual cleanup outside. Cleaned out the office instead, shed mountains of ancient paper and nearly set the world on fire incinerating it. Now we can’t find anything.

Business bleak while the world prepares for Christmas, and we prepare for the spring rush by packaging seeds.

Christmas Day, cold and bright and crisp, peace, perfect peace around a roaring fire, port wine and books, nostalgic old movies on the television and a howling draught blowing under our ancient door. Fixed it by rolling up an ancient raincoat and gagging the crack.

Boxing Day, and the year’s accounts to prepare for the tax man. A week of thrill upon thrill, yawn upon yawn, and all over for another year.

Gate creaks shut

New Year’s Eve I went to the back door as per custom at midnight. The valley bathed in pale moonlight, lights twinkling up the hillside, the Lyth Valley Hotel a box of illuminations and bursting with revelry, a cow mooing plaintively across the fields, and all round the church bells pealing out their invitation to the watch night services. Hello, 1977, as the gate creaks shut on another year of our lives.

And what do I remember? The glory of the springtime, with the rippling waves and the scent of the polyanthus; sheets of sieboldii dancing in the soft breeze; the numbing shock of the passing of dear Dorothy Goplerud of Far North Gardens, Michigan, in the summer; the miracle of my wife’s return to life after savage surgery and the blessed—blessed kindness all around me during weeks of anguish.

All else is gone—these things remain.

Jared Sinclair describes unusual 1976—a year of extremes in Britain’s weather pattern. North American growers may experience similar weather abnormalities this year. The Sinclairs operate Barnhaven, Brigsteer, Kendal, Cumbria, England, LA8 8AU.

Here come the judges

The judging school has been dubbed a success. Thirty-six students turned out for day-long sessions at Beaverton, Ore., on Feb. 19 and at Tacoma, Wash., on Feb. 26. They saw slides and plants and listened to lectures by Dorothy Dickson, Loie Benedict, Rusty Gates and Cyrus Happy.

General chairman was Mrs. Florence Bellis.

Clear-eyed judges

The school was designed to develop qualified primrose show judges. For some the session was a refresher course, but a good number of new, clear-eyed judges are now armed with point scores, rules and procedures.

Personal preferences and prejudices have been relegated to the ash heap. Judging chairmen of local shows will once again be able to draw upon judges outside their own clubs.

12-year old passes test

Perhaps one record broken following the school. Tony Trujillo, 12-year-old son of Cyrus and Rita Happy, attended the class in Tacoma, took the examination and passed. Is he the youngest primrose enthusiast to qualify as a judge?

Dorothy Dickson has been giving the examinations. She will supply a list of judges upon request if you send a self-addressed, stamped envelope. The list will be published in a coming Quarterly. Mrs. Dickson’s address is Rt. 5, Box 816, Chehalis, Wash., 98532.
Hold that pose

You spot it one day. In the greenhouse. In the garden. On a quiet hillside. Up a mountain precipice.

That beautiful plant.

You know you must record it. You look at your faithful old box camera. Time to invest in some equipment that will do the job, you decide.

The ultimate in convenience and simplicity is the single lens reflex camera with a macro lens. It allows you to focus from two inches to infinity, and it’s marked to show the amount of increased exposure needed for extreme close-ups.

Looking down through this type of viewfinder allows ease of focusing when the picture must be taken at ground level. Some plants are just too dainty to capture with a snapshot camera.

To get accurate color rendition of flowers and foliage, you need a good exposure meter. To this basic outfit can be added the Kodak grey or neutral test card.

The grey side provides a uniform surface for accurate meter readings, and it also offers a handy neutral background for small subjects. The white side is a handy reflector. It also is an aid to meter reading in low light situations.

This equipment and fast color film will allow you to work without a tripod unless the light is very poor. You may want to try High Speed Ektachrome with a film speed of 160 or Anscochrome with a speed of 200.

It is wise to bracket two or three exposures just to be sure. First make the proper exposure according to the meter. Then overexpose the next one by one stop (setting). Finally, underexpose one photo by a stop.

If you’re a beginner, you’ll probably like the inexpensive close-up lenses (used singly or in combination), which attach to the front of the camera. They permit close botanical specimen shots without your having to increase the exposure.

Filters can be important. The pola-screen filter cuts down glare from reflected light, intensifies color and darkens the sky—sometimes greatly improving a picture.

Foliage usually is recorded much too dark by black and white film. A green filter should be used to produce suitable shades of gray.

The bellows attachment, tripod and cable release provide another solution to taking botanical close-ups. The legs on some tripods will open out flat so the camera can be lowered almost to ground level.

That perfect plant isn’t going anywhere. Just settle yourself down to a little practice session.
Orthene, hailed by experts as "one of the finest new insecticides marketed in the last 10 years," is now available to primrose growers.

James R. Ely, Tacoma horticulturist and spray expert, reports that the insecticide is highly systemic, translocating well throughout the plant. He says it also has good contact action.

It's safe
"Most important," says Ely, "is Orthene's high safety factor. It is not even moderately toxic. It is one of the safest insecticides developed for use around warm-blooded animals."

Orthene is not good for bees, however. Ely said Orthene shouldn't be applied to plants in bloom when bees are working them.

Chevron tests
Orthene, a Chevron product, has been tested specifically for use against aphids, mealybugs, spider mites, whiteflies and scales and a dozen other pests. A tiny pamphlet snapped into the lid gives detailed directions for use of the new product.

The concentrated solution is mixed with water. It can be applied with small hand sprayers, garden sprayers, tank or power sprayers.

Try it first
"Don't buy the product and spray your whole crop," Ely warned. "Try it on one or two plants to check its effect. This is the method you should use with any new product."

Orthene can burn or damage the foliage of some plants. The instructions warn against its use on a half-dozen trees and advise caution on use for hibiscus, gloxinia, philodendron and salvia.

Hard lesson
Recently two nurserymen failed to check the effects of new products on their crops, Ely pointed out. They learned the hard way.

One fuchsia grower lost 10 per cent of his fresh cuttings because he was overgenerous in the application of a new gaseous form of insecticide. Another commercial grower lost 17,000 poinsettia plants when a new employee sprayed a height-reducing agent on the plants. The pesticide was to be applied as a soil drench.

Specialists at Ely-Harrison Enterprises have experimented with Orthene. Researchers at Washington State University also are working with the new product.

Spotted leaves
"It has been our experience that Orthene has left spots on the leaves of plants with fleshy leaves," Ely said. "With non-fleshy leaves we haven't seen any problems."

WSU is involved in a cooperative research project to test the use of Orthene on houseplants and foliage greenhouse plants. Until those results are available, the old "try it on one or two" rule must apply.

Test period
"You will know within a week or 10 days of application what effect Orthene will have on your plants," Ely pointed out. "If the foliage looks fine, you'll know it is safe."

Orthene may be used with fungicides or fertilizers on some plants. Gardeners should be careful to follow the instructions and to mix Orthene only with other pesticides listed on the label.

Storage rules
It always should be stored in its original container. It should not be used, poured, spilled or stored near heat or open flame. The container should be destroyed when it is empty.

Orthene is diluted for use, but leftovers of the diluted spray should not be stored. The chemicals break down in the water, and potency doesn’t last long.
by Cyrus Happy

On Anderson Island in the southern part of Puget Sound some unusual primroses have found a home.

In that rural setting one enjoys tide-swept beaches, brisk salt air, an uncluttered way of life—and gold laced polyanthus.

For at least 15 years the Tacoma primrose show has been favored with entries from Agnes Johnson. Every year she boards the ferry boat early and arrives with her small basket of plants, each groomed to perfection and each in prime condition.

Where did she get them?

Her entries always include one or more very good gold laced polyanthus. They are so good that it became necessary to find out where she gets them.

The tale begins in 1934 at Portland, Ore., where she bought a large clump of old Tiny for a dime. The plant was vigorous and healthy, and Agnes brought it to Anderson Island and shared it with fellow gardeners.

Just good thrums

Every few years she does a little hybridizing with Tiny and some of her own seedlings. Among the new seedlings are always some winners. She never bothers breeding pins. She always has enough very good thrums.

Her neighbor, Lucille Hansen, grows gold laced polyanthus all around her house. The two gardeners look with delight out their kitchen windows to enjoy their “busy bees,” which is what gold laced polyanthus look like in great quantity.

Danger! deer munching

Agnes’ plants are grown in a lath house to give them protection. The enemy is not just summer sun. There is always the threat of a visit from a hungry deer.

Perhaps we can get Agnes to produce a little surplus seed this year. The strain is the best we have seen in England and the United States.

Springtime jewel

C.G. Haysom, British authority on the auricula and its companion plant, the gold laced polyanthus, pleaded in his 1957 book for a revival of interest and effort with the old florist flower. He called gold laced polyanthus “a jewel among spring flowers” and described the perfection of form, coloring and properties.

For a high standard of perfection, Haysom said, look for a tube which is round and in the center of the flower. The anthers must be dense and curl uniformly inward to cover the stigma. The pip must be flat, smooth and circular, and the stem must be long enough to carry the truss well above the foliage and rigid enough to carry the truss erect.

The color is usually red, dark crimson or black. There can be no shading, and the color line must be circular where it joins the center. The edging or lacing must be perfectly even and must continue without any break around each petal to the center. The center is golden yellow.

‘Very valuable plant’

Growers of gold laced polyanthus have, Haysom said, a “very valuable plant.” A hundred years ago, he wrote, it was cherished so much in the north of England that growers paid dearly for a single plant. Most of those growers were hand-loom weavers “with very little money in their pockets, (so) we can only marvel at the sacrifice many of them made to indulge in their favorite hobby.”

Now Anderson Island is treasure island—and the gold is there to enjoy. Delightful gold laced polyanthus.
Imagine the magic—one lily increasing to 500,000 plants in one year. It has happened. The "magical" procedure is tissue culture propagation.

In December several of us attended a plant tissue culture seminar and open-house at Northwestern Washington Research and Extension Unit at Mount Vernon, Wash. Speakers discussed the processes involved in using tissue from a single plant to create thousands of plants.

**Four factors = Success**

The first speaker was a commercial propagator whose main crop is Boston ferns produced by tissue culture from the tips of the fern’s runners. Sterile conditions, proper nutrient, temperature and light are key factors in the success of the operation.

Bulbs were most receptive to tissue culture propagation. Hyacinths, tulips, iris and lilies proved easy to work with. The speaker outlined his success story by relating how an outstanding new lily seedling could be increased to a half-million plants in a year.

**Scientist checks growth factors**

There are problems

Rhododendrons were proving to be a difficult subject. Getting the right nutrient balance was the problem. However, most obstacles were being worked out.

Then tiny new plants developed without roots. Putting the little rootless plants in mist culture rooting benches resulted in 70 per cent success.

A Weyerhaeuser Company tree specialist told me he was working on Douglas fir using the needles for tissue culture. When he learned my interest was Primula, he suggested the use of flower petal tissue.

**Will buds work?**

I was thinking that an immature auricula flower bud may work as well as broccoli. Tiny offsets seemed like possible subjects too. Almost any part of the plant could lend itself to tissue culture.

A most exciting side result of tissue culture has been the discovery that unwanted virus are left behind when the tiny new plant nodules are harvested early enough.

**Hobby gardener can try**

The culture procedure is not beyond the serious hobby gardener who can turn a good deal of time, thought and experimentation (and a corner of his basement) over to this revolutionary means of plant propagation. Essentials appear to be an 80-degree culture room and 1500 to 2000-foot candle illumination.

Dr. W.C. Anderson said the staff at the experiment station was there to help and share information. I must add, however, the inquirer should first become well informed an agar and related growing media and working under sterile conditions.

Address of the scientists is Plant Tissue Culture Research, Northwest Washington Research and Extension Unit, 1468 Memorial Highway, Mount Vernon, Wash. 98273. Telephone number is (206) 424-6121.
Ralph Benedict's Midwest garden

Red spider infestation was extremely severe in the Midwest last summer because of the early arrival of warm weather. Early summer gave the mites a great start. Later we had three months of hot weather with little or no rainfall. They liked that too.

All the vernales were affected severely. In my garden many candelabras, especially the japonicas, were hard hit.

Lucky planning
Kelthane or Malathion seemed to do very little good. It was fortunate I had planned to use systemic insecticide granules (active agent is “Di-syston”) on the soil around all of my choicest plants.

Since I like to use plants in my breeding program that are at least four to six years old to be sure they are true perennials, I have many plants subject to red spider. The granules were highly effective.

Treatment = green plants
All of the plants I treated remained green through mid-summer and fall. The plants treated with Malathion and Kelthane looked very bad in the fall; and our lack of a cool, rainy fall did not allow them to recover as they usually do during that period.

We went from a dry fall into a cold, hard winter. I have been fortunate that up to now—end of February—we have had a good snow cover.

I have learned a good lesson. This summer I shall extend the use of the systemic granules to many more plants.

New subject: seeds
I would like to offer a few ideas on seed production of vernal primroses in the Midwest that may not agree with the methods used on the west coast.

It gets much too warm here. I do not pot up the plants used for pollen or seed production. The plants are much better left in the ground with the roots cool under a protective mulch.

Plants used as seed parents, in most cases, are several years old. This is necessary, I feel, if we are to raise true perennials and not biennials.

Old ones get sick
These older plants are especially subject to loss if potted up, weakened by seed production and then replanted during the heat and drought of late July and August. They are much too choice to have this happen. I do have some plants that have produced seed or pollen for five or six years. They are left in the ground.

I keep the seed plants along the edge of the beds where I can sit on a rubber pad on the ground to work easily. I do the actual pollination by the usual method—removing the petals to expose the pistil, bending a petal from the pollen parent, extending the stigma with its ripe pollen and brushing this on the pistil.

Making tents
After the pollination I push three sticks into the ground around the plant. These sticks vary from six to 12 inches above the ground, depending upon the height of the flowers.

I snip a small hole in the bottom of a plastic bag or “baggie” for ventilation and pull this over the three sticks to form a small tent. I leave an inch or two space from the bottom of the sack to the ground so the plant will get air and water while the flowers are protected from rain or hail.

Tent removal
I keep the sack on the sticks by using a small rubber band. I remove the sack and work new buds each day or as needed. The sack may be removed in three or four weeks when the seeds are forming, or they can be left longer.

Plants treated in this manner—left in the ground and protected from disease—will produce seed for several years if we have selected them for their long life genes as well as for their color.

Dr. Ralph H. Benedict, a veterinarian, is a regular contributor to the Quarterly. He lives at 14 Alpine Ct., Wilson Lake, Hillsdale, Mich. 49242.

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Primrose Hill, Bell's Bank, Buckley, Worcs., England
One perfect blossom. A truss bursting with sunset pink. When a photograph can't capture each dimension, there's an ancient method that will preserve a flower in its prime.

It all has to do with sand. Vonnie Cowan has devised her own way of using this simple commodity to capture the beauty of the tiniest wildflower and the boldest garden bloom.

Vonnie Cowan selects preserved blossom

FOREVER PRIMROSES

One perfect blossom. A truss bursting with sunset pink. When a photograph can't capture each dimension, there's an ancient method that will preserve a flower in its prime.

It all has to do with sand. Vonnie Cowan has devised her own way of using this simple commodity to capture the beauty of the tiniest wildflower and the boldest garden bloom.

Sand is her partner

Mrs. Cowan, a Puget Sound artist, has read the scanty—and sometimes misleading—reference volumes on flower preservation. She has rejected silica gel and solutions as preservatives and has turned to 60-mesh sand as a partner in the exacting craft.

The process is designed to begin with perfection and to retain that perfection. If the flower is damaged or faded, the process has not been followed properly.

"I like the way I see the world," Mrs. Cowan says. "I have tried to learn the Oriental approach. They don't pit themselves against nature."

Need respect for nature

She says "respect for nature" is an essential ingredient of the preservation process, adding that one "must have respect for the blossom you clip, wanting to show it at its best advantage."

Three items are needed: flower, sand and container. "Monterrey sand" is best, Mrs. Cowan says. That is available at most sand and gravel firms.

The flower must be cut at its peak. Even a few hours can make a noticeable difference in its quality. Sometimes she takes the sand and containers to the flowers so a long trip home won't leave blossoms limp and useless.

Begin with garden flowers

Garden flowers are best for beginners, she advises. Wildflowers are fragile and sensitive to temperature change.

Containers for the flowers are no problem. Anything works as long as it is big enough so the flower has plenty of room around the sides. Mrs. Cowan uses a lot of cottage cheese containers.

She places an inch of sand in the bottom of the container, sets the blossom onto the sand on a short stem. If the flower has an interior, it should be placed upright. If it doesn't, it should be set upside down in the sand.

Pour sand gently

She then pours sand gently from her hand around the edge of the flower.

"Start building it up around the outside, thinking all the time about contour," Mrs. Cowan said. "Come up under the petal—don't wipe out the indentations."

She fills the centers, covers the entire flower and pours an additional two inches of sand on the top. She labels the container and sets it on a shelf where the air is warm and dry.

Then she waits. Some flowers dry in two weeks. Some take three or four weeks. Sand has chemical properties which cause drying, but the moisture content in the petals varies from flower to flower.

No peeking allowed

"Just remember—no peeking," she reminded.

She removes the sand by pouring it off until the flower is well exposed. She then carefully extracts the flower by the stem.

Each flower must be cleaned meticulously. If it isn't, sand particles may spoil the final arrangement. Mrs. Cowan supports the flower with a finger underneath and uses a fine brush to clean the petals.

Mrs. Cowan uses her preserved flowers in artistic arrangements. She adds fabric, foliage, imported butterflies, bits of honeycomb, tiny nests and eggs. All her arrangements are enclosed in glass frames or boxes.

Study them away from sunlight

"Open bouquets are fine," she says, "but they can't be touched." Preserved flowers should be kept out of the sunlight so they will retain their true colors.

Mrs. Cowan suggests that preserved flowers could be used as study specimens. They could be available for year-around use.

She also sees the craft as one which is perfect for the retired, confined gardener. Materials are simple, techniques are perfected with experience and waiting time is short.

The sands of time work their own miracles.

Vonnie Cowan has taught sand preservation of flowers in Washington. She also spent a month in Japan recently, teaching the method to eager gardeners, flower arrangers and artists in Tokyo and Oizumimachi, Japan.
Pennsylvania Primroses
by Jenny Althouse

Primroses aren't hard to raise in the east. Not if you want them for your own pleasure.

I have some planted right out in the open, and they look good. They don't take as much care as a lot of other flowers; and they multiply and get nicer every year.

Experience helps

I have learned a lot since I started growing primroses in the 1950s. First I sowed the seeds in flats and froze them outside. Since then I have learned to plant them in beds.

I make frames—like a cold frame. In the fall I add leaf mold and sand or any good rotten humus. I sprinkle it, soaking wet, with slug repellent and Captan or Dithane-M-45, which is very good for fungus on the ground or on the leaves.

Curtain time

When that is ready, I cover the soil with old curtains—dacron, not burlap. I put pine needles on top of the fabric and cover the bed with plastic sheeting until February.

If we have snow, I shovel the snow off the bed, roll the fabric off halfway. Then I sow the seeds, cover them with a thin layer of oak leaf or compost (no manure). I water with Captan or Natriphene, roll everything back into place and cover the bed with lath frames until spring.

Plants peek out

When the tiny plants begin to peep up all over the bed, I add a little more compost and sand—not too much at a time. The beds are raised, and I always sow in rows so I can pull the weeds. I use plastic mesh around the outside of the beds to shade and to keep the animals out.

I don't change the soil, and the only fertilizer I use is Sturdy, Blue Whale or any other good fish emulsion. I add this when the seedlings have about three true leaves, but I only use a small portion then. After that I sprinkle them with fertilizer every three or four weeks.

Shade, please

In July I start transplanting. I shade the tender plants in raised beds with plastic mesh around the outside. Sometimes I use netting over lath frames; but if you have part shade, don't worry about frames. Mulch is very important when you transplant. That keeps the roots cool. I always mix it in sand.

Here in the East well-rotted sawdust is the best mulch. We can get oak or white sawdust from the mills. I do not use walnut or pine. If you get sawdust, sprinkle it good and add fish emulsion to it. You'll have a good black mulch in a short time.

Fall clean-up

In September or October I clean my beds and mulch them good with sawdust or oak leaves—anything that's rotted well. I never add manure in the fall. (Rotted cow manure is all right mixed with mulch at planting time.)

To prepare the beds for planting, I use sand, rotted oak leaves and compost mixed with lime and a little tobacco dust—not too much—about a handful or two to a wheelbarrow. I never take the dirt away to put new soil in.

More mulching

In late October or November it is time to sprinkle with Slug-it. Then I mulch with pine needles, which I can get for the asking. I mulch lightly in early fall and heavier later on. By springtime the primroses grow up through the mulch and look beautiful.

Sometimes I leave the needles on and dig the plants for market. I watch the plants for heaving or freezing. We have to push them down if they heave out of the soil, or we will lose them.

Two vital rules

During the colorful summer blooming season there are two important things to remember: keep the roots cool and water them. We have to soak them during the summer if it doesn't rain. If you have one plant or a hundred, letting them dry up is one way of losing them.

I enjoy my primroses. They give me more flowers every year.

Jenny Althouse shares her tried and proven method of growing primroses in a less-than-mild climate. Her garden is at 1515 King St., Lauderdale, Pa., 19605.

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Dues of 7 a year were payable Nov. 15. Membership includes four issues annually of the Quarterly, cultural chart and seed exchange privileges. Three years for '20. Life membership, 100; garden club affiliated societies, 10 a year; library and horticultural societies, 7 a year; second member in family, 1 a year. Overseas members, 7 a year; please send by international money order. Send dues to the treasurer.

Publications

Back issues of the Quarterly are available. Order from the treasurer. Pictorial dictionaries can be ordered from the treasurer for 3 each, postage included.

Mail ballots to: APS Ballots, 35180 SE Hwy. 211, Boring, Oregon 97009

I have a question!

Answers by Alice Hills Baylor

Q. Please tell me how to prepare clay soil for the planting of primroses?
A. A clay soil needs to be made porous as well as rich. Remove about one third of the soil, add builders sand, compost (or peat moss), well rotted or dry cow manure to a measure of the remaining clay (We used a wheelbarrow.) That is a third to a whole. The soil should be so that it crumbles. When a great deal of compost or peat (well soaked) is added, it is necessary to add more nitrogen. The compost takes out nitrogen when it continues to decompose.

Wood ashes may be added for lime and potassium content. Sulphate of ammonia (nitrogen) added 25 pounds to six square feet; superphosphate, 20 pounds; and potassium chloride, 15 pounds to the same area. Nitrogen gives good growth and health. Potassium is needed for root development, color of flowers and disease resistance. Phosphate is needed for protein, reproduction or setting of seeds.

The above chemicals can be added to compost. If one wishes to have plants which need lime, that can be added as limestone mulch (or eggshells) to the area. If an acid soil is desired, add aluminum sulphate and have the soil tested.

The majority of Primulas will thrive in a neutral soil, pH 6-7. Rhododendrons like 6-5, and blueberries and orchids need pH 5-4. A clay soil contains the trace chemicals and will hold moisture. The bed should have good drainage—raised at least ten inches above the surrounding area. A sandy soil needs quantities of vegetable material, compost, peat (well soaked), well rotted manure, sawdust (very old and black), bark (at least three years old), shredded newspaper soaked in a solution of any good fertilizer—besides fertilizers.

Q. How should I care for P. obconica?
A. This primrose belongs to the tender group and is used as a house plant. It can be started from seed in winter under lights and then fertilized when it is transplanted to a larger pot, it blooms so heavily that it will need fertilizer every three weeks. It comes so readily from seed it is best not to try to keep it over a second winter.

Q. What can I do for mold on seed flats?
A. Water with a weak solution of potassium permanganate—one small pellet to a quart of water—until mold disappears.*

Q. Plants have arrived from a nursery through the mail. They are wilted. What shall I do?
A. Place plants in a low container in a weak solution of any good fertilizer in a cool place (basement) for 24 hours. Then plant in late afternoon or evening. Next morning place a milk carton or flower pot over the plant. Keep shaded until there is no wilt. If necessary, remove a few leaves. If plants are shipped in peat pots, break the bottom so roots can come through more easily.

*Answers by Alice Hills Baylor
Q. Will you kindly identify the enclosed drawing of my plant? I am sending along a leaf also.
A. The only way a plant can be identified is by both flower and fruit (seed). If you can do this, I may be able to identify your plant. Kindly send a self-addressed and stamped envelope. I am quite certain your plant is not a primula.

Q. When is the best time to transplant seedling primroses, and when should I divide mature plants?
A. Seeds started in late winter or very early spring may be transplanted from seed flat to growing on flat when in second leaf. When plants are good size for transplant, July or August, they may be set out in the garden. The site should be prepared in advance and transplants well watered in. They should be fertilized with a solution of any good fertilizer when transplanted from seed flat and every two weeks after that and also when set out in garden.

Mature primroses plants can be divided after blooming. Dig plants, gently wash roots in water and little by little pull apart. Each division can be planted. It is wise to remove a third of the lower leaves at this time. All primroses should be fertilized in very early spring and again after flowering and then after dividing.

Do you have a question? Ask Alice Hills Baylor, corresponding secretary, by writing to her at Stage Coach Road, Rt. 2, Stowe, Vermont, 05672. She will select questions to be discussed in her regular column.


Sources of Primula seeds and plants seem to be hard to find. Your editor took a few minutes to go through the catalogs on file at the Seattle Public Library. Here are the interesting ones:

J. L. Hudson, Seedsman, P.O. Box 1058, Redwood City, Calif., 94064, a selection of Primula seeds. Clyde Robie, P.O. Box 2091, Castro Valley, Calif., 94546. P. suffrutescens seed. Siskiyou Rare Plant Nursery, 522 Franquette St., Medford, Ore., interesting species Primula. Lamb Nurseries, E 101 Sharp Ave, Spokane, Wash., 99202, half a dozen juliae hybrids. Laura's Collectors' Garden, 5136 S. Raymond St., Seattle, Wash., 98118, several species. Mellingers, 2310 West S. Range Rd. North Lima, Ohio, 44452, vast list of horticultural supplies.

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**THE SCOTTISH ROCK GARDEN CLUB**

Adventures of brave explorers

This 400-page book illuminates the adventures of 160 intrepid explorers, including such giants as Thunberg, Siebold, Veitch, Forrest, Kingdom-Ward, Ludlow, Sheriff, Bartram, Menzies, Drummond, Douglas and Nuttall. It directs attention to many other people who, by their encouragement and support, contributed importantly to the success of these adventurers.

A comprehensive index provides access to the treasures of the book and refers to 421 genera and 851 species that the hunters discovered and collected. Many of our familiar garden genera are represented by only one or two species. On the other hand, Lilium, for example, is represented by 23 species, Primula by 35 and rhododendron by 54.

The body of the book is divided into 10 sections, each devoted to a geographical area. At the beginning of each section is a list of plant hunters who explored in that area and a record of the year in which each began his first expedition. The scope of the book is indicated by the following tabulation which I have derived from these lists.
The volume of plants and seed collected and shipped by these plant hunters is almost beyond belief. For example, George Forrest who had a good summer in 1931 shipped from China about 260-300 pounds of "good clean seed" representing 400-500 species. In 1925 Frank Kingdon-Ward shipped more than 250 species of which "... only two percent failed to germinate."

John Gibson, collecting in India in 1836, found 80 or 90 species of orchid besides many other fine plants. John Gould Veitch, working in Japan in 1860, shipped collections to Europe which included his introductions of Lilium auratum, Magnolia stellata, M. soulangiana nigra, Primula amoena, P. cortusoides, P. japonica, Parthenocissus tricuspidata, Cryptomeria japonica var. elegans, and Juniperus rigida. What renders such production amazing is that most of it was collected under outrageously difficult and hazardous circumstances.

Includes drawings, maps

A bibliography has 178 entries. There are 26 plates, which include reproductions of paintings and drawings of important plant hunters, maps and drawings of plants and scenery; eight figures are scattered throughout the text.

The book, full as it is with factual information, is also entertaining. Treatment of each character is brief—each could be the subject of an exciting volume—but the author has managed to make them come sufficiently alive to create a feeling of knowing them and of sharing, in a sense, their enthusiasms, frustrations, hardships, tragedies and triumphs.

Armchair adventure

It takes only a little imagination to fancy that one has shared a little of the experience of, say, Joseph Dalton Hooker when, in Sikkim in 1850, he first collected Primula sikkimensis and P. capitata or of Frank Kingdon-Ward in Tibet when he found P. florindae and later, high in the Himalayas, P. cawdohana, P. baileyana and P. melanops.

Finally, although "The Plant Hunters" is written concisely and without embroidery, the author displays throughout an attractive sense of humor. It is a good book to read just for the fun of it.

Calendar notes

April 2, 3 .............. Tacoma show, Villa Plaza—Pacific bank
April 8, 9 ................. Valley Hi show, Beaverton Mall
April 16, 17 .......... Oregon St. show,—Milwaukee Comm. Club
April 17 ................ Mount Angel show, JFK High School
April 9, 10 .. Washington St. (National show)—Redmond Chamber of Commerce, 16210 NE 80th, Redmond, Wash.

May 21 .................. East Chapter 1 meeting,—Redfields
Diary of a Primroser

by Cy Happy

Summer of '76 brought an opportunity to repot Ralph Balcom's collection of double auriculas. For a nominal fee, I was told, I could keep offsets from the plants I wanted. To get a good cross-section of Ralph's hybridizing through the years, I took 60 offsets.

They are sturdy plants with fat buds showing down in the crowns. An early blossom here and there add interest. Venerable 0-6, 25 years old, gives a splash of pale purple.

A pan of auricula seedlings needs potting up. Jack Ballard sent me the seed from England last May. He said he didn't think he would get around to planting it. He was right. He died in June.

Went over to Gibson's nursery in January to get a bottle of Orthene and check on their polyanthus and primroses. Looked like well over 20,000 plants, superb range of colors.

Most of the plants seemed to be poly-acaulis. When buying these plants, try to choose plants that are going to multiple crowns. The single crown plant may tend to stay that way and die off during the summer.

My auriculas are budding now in mid-February. This year I have used the lights very little to spur them into growth. Nice weather and bright days have done it for me.

Went over to Fred and Helen Clarke's garden. Stays in the hospital slowed them down very little—as do their four-score years. Their big cold frame is full of bright splashes of early color.

Their rows of primrose Springtime (P. vulgaris rubra of Sibthorp and Smith) bloom lavender-pink off and on all winter and slow down as the rest of the primroses come into bloom. Fred always has a few P. obconica Apricot Brandy giving a splash of splendid color in a sunny window.

The first bloom on my hand-pollinated silver laced polyanthus was showing color. Couldn't resist spreading the petals to peek inside.

The body color was very black, eye clean and round. But the lacing didn't go all the way down the center of each petal. Oh, well, better luck next time.

A cross of Garryard Guinevere with a semidouble acaulis is blooming. Blossoms are small, single, pink. Folage is dark reddish bronze.

Several crosses of tiny P. juliae pollen on a giant blue cowichan polyanthus are blooming now. Look a lot like Wanda but perhaps brighter colors and smaller eyes. There is nothing that can compare with the interest aroused as early spring brings the results of your own hybridizing.

The judging school was long overdue. The Portland turnout featured 18 dedicated primrosers who paid close attention during five hours of classes.

Stopped at the Herb Dickson's in Chehalis on the way home to drop Dorothy off and have a bite of supper. Trailed out to the greenhouse with Herb to see what was new.

He had one bright pink, large flowered julie hybrid that promised to be a show stopper. Some of the plants from the same cross turned out to be as big as regular primroses. If they spread underground like Julies, this could be the start of a new group of permanently perennial primroses.

Let's start a breeding program aimed at permanence, using durable old varieties—Quaker Bonnet, Garryard Guinevere, P. juliae, P. altaica—and even a gold laced polyanthus.

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